

# TECHNICAL HANDBOOK

Fire stopping of service penetrations

7<sup>th</sup> edition August 2019





## Overview

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The contribution to building protection by installed fire stopping products is often undervalued by businesses. The media very rarely reports on the reduction and positive effects of fires in compartmentalised buildings, even though thousands of lives and the buildings themselves are saved each year. I guess there's nothing to write about when the destructive impact of a fire is prevented. Compartmentalisation works by preventing the spread of fire, and preventing shocking injury, or death to both people and animals, and untold damage to buildings.

One often reads about the heroics of fire departments, or that the fire was halted by the sprinkler system, rarely is it attributed to compartmentalisation. Why is that? Is it too complex to be considered? Of course not, it is an easy and cost effective way to protect a building against the spread of smoke and fire. I compiled this handbook to demonstrate the ease and effectiveness of compartmentalisation, and to raise awareness of the short movies showing the installation in real time (available on YouTube, just search for Protecta).

Today, time is the reason compartmentalisation is the most effective method to use against fire spread. A fire can spread so quickly, that it is impossible for any fire department to quickly extinguish it without causing large scale damage

to the building. And fire can spread so fast in residential homes that the whole house can burn down before the fire department even arrives. Isolating rooms where fires are more likely, reduces the effects of fire spreading to the rest of the building and increases the time the fire fighters have to put it out before it spreads.

A fire compartment can be designed to restrain a fire for 60 minutes, which could be sufficient time to evacuate the building safely. And for the fire department to arrive and extinguish the fire, that is if the fire does not burn out on its own due to lack of oxygen, material, or both.

Compartmentalisation is not the only consideration. Compartmentalisation of rooms (where fires are most obvious) should also take into account the number of occupants and where occupants are located; the types of activities being performed on the premises; the fire evacuation route; the fire alarm system and other systems linked to the fire alarm. This is evident in the designs the architect has incorporated into our new factory built in Huddersfield city centre.

Without my important modifications to the original plans, the whole site would be exposed to unnecessary and preventable risk from fire, and the following consequences: employees would be exposed to the dangers of an evacuation through

smoke filled corridors that would disorientate and impede the evacuation leading to possible loss of life. The building itself would be unusable and even unsafe and could be condemned; the business would lose its manufacturing capability, leading to loss of business in the short term and/or even the possible closure in the long term.

For over 26 years, Polyseam have developed products to simplify the installation of fire stopping of service penetrations. Solutions to problems do not have to be complicated, expensive and time-consuming, instead we offer simple solutions designed and tested in apertures and Services, installed in real situations and solved through complex chemistry. Who are we to tell construction professionals how to insulate a pipe, or cut a hole in a gypsum wall? No... it is far more beneficial for those working in the sector to receive solutions adapted to meet their requirements for products, installation and performance.

I truly hope you find this handbook useful (combined with all the other things we are doing), and enables us to work together to build safely in the future.



**Kjetil Bogstad**  
CEO of Polyseam  
& Handbook Editor



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# Which products should be used where?

In most cases, the type of product chosen depends on the size and configuration of the seal or aperture to be fire protected, the construction type and the type of services (if any) that penetrates the construction. This can be simplified by saying that where there are no gaps or gaps less than 10mm, the putty cord product or collars are used, small gaps above 10mm a sealant is normally used and for larger apertures the board and mortar products are used. These solutions are given in general in the two following tables, and the details are given in the technical appendixes found in this handbook, which can easily be located using the index on the last pages.



Typical sample of penetrating services with gap widths between 0 and 10mm



Typical sample of penetrating services with gap widths between 10 and 30mm



Typical sample of penetrating services with gaps above 30mm or mixed services

## Product Selector - Linear Seals

Properties	Construction	Seal Size	Product
<b>Normal</b>	Walls and floors	Up to 100mm wide	Protecta FR Acrylic
<b>Water proof and high movement</b>		Up to 30mm wide	Protecta FR IPT
<b>Extra wide with some movement</b>	Walls	Up to 1,200mm wide	Protecta FR Board
	Floors	Up to 800mm wide	
<b>Extra wide and loadbearing</b>		Up to 800mm wide	Protecta EX Mortar

## Product Selector - Penetrating Services

Seal Size	Construction	Services	Protecta Product(s)
<b>Gap between 0 and 10mm</b>	Walls and floors	Cables	FR Putty Cord
		Metal pipes; un-insulated or mineral wool insulations	
		Metal pipes; combustible insulations	FR Collar
		Plastic pipes	
		Ventilation ducts	FR Putty Cord & FR Damper
<b>Gap between 10 and 30mm</b>		Cables	FR Acrylic
		Metal pipes; un-insulated or mineral wool insulations	
		Metal pipes; combustible insulations	FR Acrylic & FR Graphite
		Plastic pipes	FR Acrylic, FR Graphite or FR Collar
		Ventilation ducts	FR Acrylic & FR Damper
<b>Gap above 30mm and mixed services</b>	Walls	Cables and cable trays	FR Board
		Metal pipes; un-insulated or mineral wool insulations	
		Metal pipes; combustible insulations	FR Board & FR Pipe Wrap
		Plastic pipes	
		Ventilation ducts	FR Board & FR Damper
	Floors	Cables and cable trays	EX Mortar
		Metal pipes; un-insulated or mineral wool insulations	
		Metal pipes; combustible insulations	EX Mortar & FR Pipe Wrap
		Plastic pipes	
		Ventilation ducts	EX Mortar & FR Damper

# General rules to fire classifications

## Aperture sizes and allowed services

The technical drawings in this handbook show the maximum size allowed of any aperture or linear seal as tested, and as shown also in the product's installation instructions. The maximum allowed cross sectional area of a rectangular aperture, can be used to calculate the maximum allowed cross sectional area of a circular aperture. To calculate the maximum allowed cross sectional area of a circular aperture, simply calculate the size in for instance cm<sup>2</sup> and then use this to calculate the allowed diameter (∅):

A rectangular aperture of 1200 x 2400mm would have a cross sectional area (A) 28,800cm<sup>2</sup>

radius =  $\sqrt{A/\pi} = \sqrt{(28,800/3,14)} = \sqrt{9172} = 96\text{cm}$

∅ = radius x 2 = 96x2 = ∅192cm

An approval for a circular aperture is not allowed to be used in a rectangular aperture. The total amount of cross sectional area occupied by services (including insulation) should not exceed 60% of the penetration cross sectional area.

## Additional aperture sizes in floors

Under EN 1366-3 rules, results from tests in floors with a penetration seal length of minimum 1m apply to any length as long as perimeter length to seal area ratio is not smaller than that of the test specimen. The following aperture sizes are therefore allowed where 2400 x 1200 mm is described in this handbook and in the products installation instructions.

### Maximum Aperture Sizes within Floors or between Floors and Walls

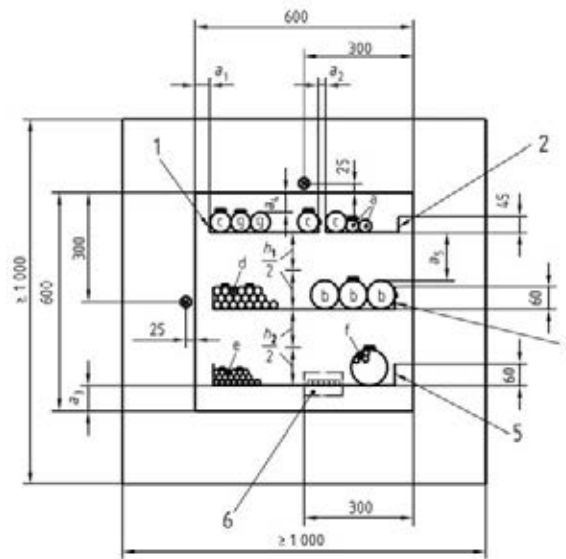
1200 mm width x 2400 mm length (tested)
1100 mm width x 2900 mm length (allowed)
1000 mm width x 4000 mm length (allowed)
900 mm width x 7000 mm length (allowed)
≤ 800 mm width x ∞ (infinite) length (allowed)

## Service sizes

The test standard (EN1366-3) groups services to be tested for approval. For instance, all cables in the group up to a certain diameter must be tested otherwise, approval is only granted for the exact specimen tested, and this has no practical value.

For cables, there are many groups to test to obtain full approval. For example to obtain approval for all cables up to 21mm diameter, it is necessary to test the following cables: type A1, A2, A3 (A cables are 5 x 1.5mm<sup>2</sup>) and B (1 x 95mm<sup>2</sup>). The position of the cables in the test is also subject to how the cables are allowed to be positioned in practical. The testing of cables on cable trays normally consists of 4 cable trays packed with different types of cables, wires and conduits.

Our specifications for installation are simplified to allow the installation to be performed correctly and with the least complexity, however testing to achieve the specifications is anything but simple. In general we specify service sizes with the symbol  $\leq$  in front. Without this symbol, the size of the service is exactly as specified. The same can be said for pipes. For metal pipes testing consists of a certain design group which includes pipe diameter and wall thickness. However, where we do not specify this, it is because we have tested all the different wall thicknesses available. For plastic pipes testing also includes the different plastics, eg: PVC, PE and so on.



Example of standard configuration for cable penetration systems according to EN 1366-3

## Fire classifications; what do they mean?

In Europe we all use the same system to classify fire resistance, not only in fire stop seals, but also in walls, floors, doors and so on. In fire stopping, only a few letters are used to indicate the result and what protection the installation gives.

**E - Integrity**, the time it takes for fire to physically spread through a fire seal. At the point of failure one can see the glow of the fire through the seal, flames coming through or via a cotton pad which catches fire when held close to the seal by the test technician. This is the simplest classification to achieve.

**I - Insulation**, the temperature, measured on the non-fire side has increased by 180°C on either the fire seal or the services. This is measured through many thermocouples placed in strategic locations. The intention is to replicate the lowest possible temperature that can actually start a fire, even though the fire itself has not passed through the fire seal. This is the more difficult classification to achieve.

In most European countries, there is a demand that the fire classification should include both integrity E and insulation I. However, if the fire seal is in an area where no combustible material are close by, and no combustible materials are likely to be placed closed by, an engineering judgment could be taken to approve usage of the integrity classification only. This is why we state both classifications in this handbook.

The letters are followed by a number, which is how long in minutes the integrity and insulation were maintained. For instance, the classification **E 60** is integrity for one hour, whilst **EI 120** is both integrity and insulation for two hours.



*Picture shows a fire test after 2 hours at BM Trada in UK*



## Pipe end configurations

When testing pipes, one can choose not to cap (or close) or to cap the pipe inside or outside the furnace. The configuration chosen depends on the intended application of the pipe and/or the installation environment. The code defining if a pipe is capped is stated after the fire classification. For instance EI 60 C/U means the pipe was capped inside the furnace, and uncapped outside the furnace.

### Field of application rules for pipe end configuration:

		Tested			
		U/U	C/U	U/C	C/C
Covered	U/U	-	NO	NO	NO
	C/U	YES	-	NO	NO
	U/C	YES	YES	-	NO
	C/C	YES	YES	YES	-

### Our engineering judgment based on EN 1366-3:2009:

Intended use of pipe	Pipe end condition	
Rainwater pipe, plastic	At drainage	U/U <sup>1)</sup>
	Not at drainage	C/C <sup>2)</sup>
Drainage or sewage pipe, plastic	Ventilated drain	U/U <sup>1)</sup>
	Unventilated drain	U/C <sup>1)</sup>
	Drain w/water trap	U/C <sup>1)</sup>
	Not at drainage	C/C <sup>2)</sup>
Pipe in closed circuit (water, gas, air, electricity etc.)		C/C <sup>2) 3)</sup>
Flue gas recovery system pipe, plastic		U/C <sup>1)</sup>
Pipe with open ends and ≥ 50cm length on both sides, plastic		U/U <sup>2)</sup>
Pipe supported by suspension system, metal	Fire rated support	C/U <sup>1)</sup>
	Non-fire rated	U/C <sup>1)</sup>
Waste disposal shaft pipe, metal		U/C <sup>1)</sup>

<sup>1)</sup> Stated in EN 1366-3:2009. <sup>2)</sup> Polyseam's judgment based on tests. <sup>3)</sup> Metal pipes should have fire rated support.



## Surrounding constructions

The wall or floor construction used in a test will limit the scope of certification. The general rule is that the wall or floor thickness tested will be the minimum allowed thickness of the wall or floor. Also, if a gypsum (flexible) wall is tested then approvals for a concrete/masonry wall are also obtained, but not the other way around. So if only concrete/masonry walls have been tested, the test data cannot be used for a gypsum wall. Certifications for floors are only possible by performing floor tests, and this test data cannot be used to obtain certification for walls.

The standard **flexible wall** constructions specified in the test standard are:

Nominal minimum overall thickness in mm	Thickness of gypsum board EN 520 Type F in mm	Number of layers each side	Indicative fire resistance in minutes
69 - 75	12.5	1	30
94 - 100	12.5	2	60
94 - 100	12.5	2	90
122 - 130	15.0	2	120

The standard **rigid wall** constructions specified in the test standard are:

Thickness of aerated concrete (650 +/- 200) kg/m <sup>3</sup> in mm	Indicative fire resistance in minutes
75 +/- 10	30
100 +/- 10	60
125 +/- 10	90
150 +/- 10	120
175 +/- 10	180
200 +/- 10	240



The standard construction for **concrete floors** shall have a density of (650 +/- 200) kg/m<sup>3</sup> and a thickness of 150mm.

## Supporting constructions and service supports

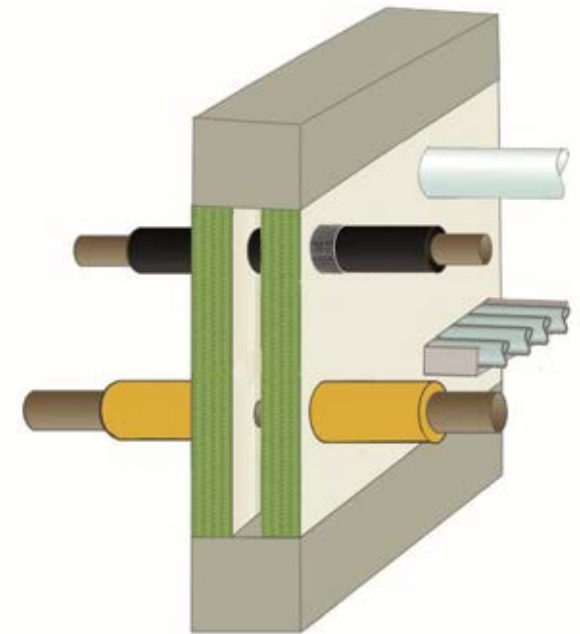
The supporting constructions (fire rated walls and floors) should be classified in accordance with EN 13501-2 for the required fire resistance period.

Services in floors should have the first support located 250mm from the top face, and services in walls should have the first support located 270mm from both faces of the wall. Thereafter the services should be supported according to the support system manufacturer's installation instructions.

## Mixed services within the same aperture

The systems, Protecta FR Board and Protecta EX Mortar, may be used to provide a penetration seal with cables, cable trays, metallic pipes, ventilation ducts, composite pipes and plastic pipes, with and without insulation, with mixed services within the same seal/aperture. The technical solutions in the following pages can be combined where the fire seals are built the same, however, the fire and sound classifications will for the whole seal be no better than the lowest classification given on any through service, what we term 'worst-case-scenario'.

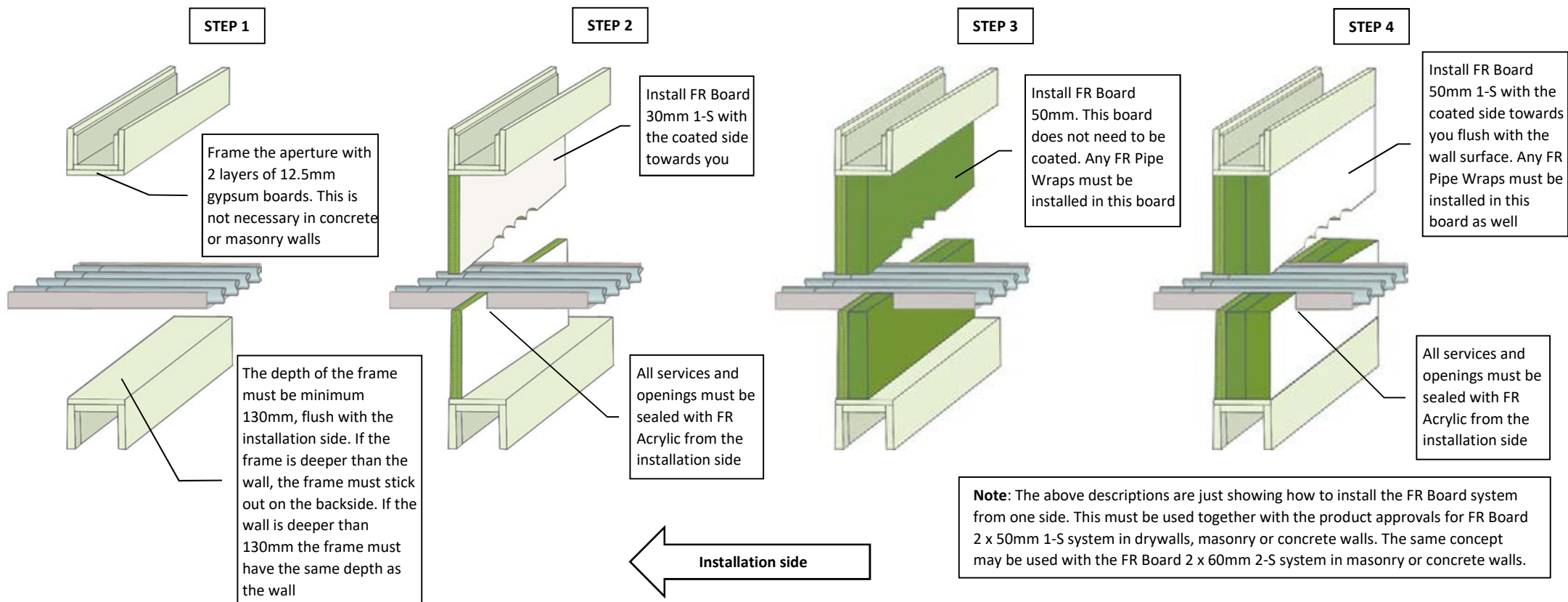
The technical solutions on the last pages of this handbook are for mixed services, but do not include all the different options and are provided as a quick guide. Here you can select the fire resistance and see what fire stopping system you require for a whole group of services, this simplifies the engineering and is of course very useful and helpful.



# Normal on-site problems and solutions

## Single sided access

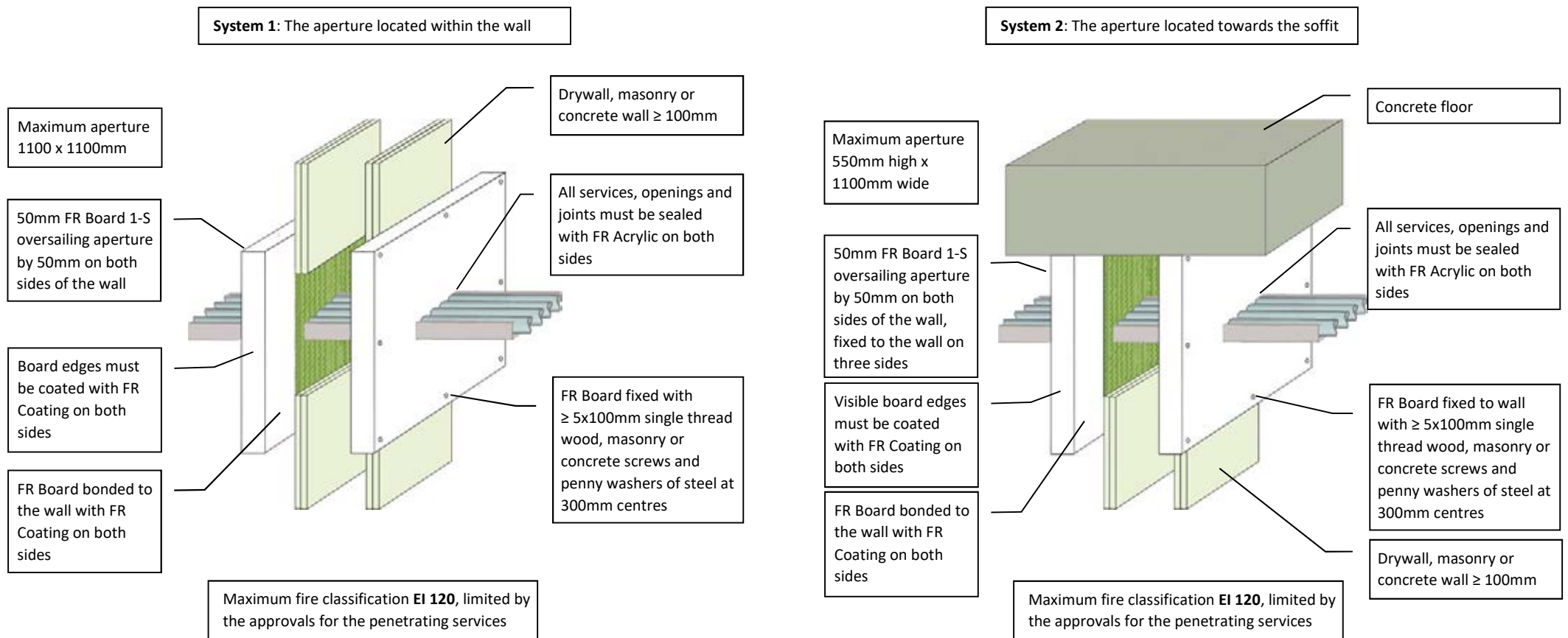
On construction sites there may be cases where an aperture for a fire seal that is to be installed is only accessible from one side. With many of the Protecta® products this scenario is already tested, certified and included in this handbook, but one issue is the Protecta FR Board system which requires the sealing of gaps from both sides of a wall after insertion. However this is solvable by using an additional inner board with the coating facing towards the installer; it will result in the same fire seal as the certified solutions. Below are the detailed descriptions and this is especially useful with risers or shafts with gypsum boards on only one side.



# Restrictive fire seals and the pattress solution

Some fire seals in walls can be restrictive, so it is difficult to insert the different pieces of the Protecta FR Board. Therefore Polyseam has tested a pattress system, where the boards are installed on the surface of the wall instead of inside the aperture. This is then an additional way of fixing the boards, but the fire classifications will still be limited to the different services given in this handbook, for drywalls with the system 2 x 50mm 1-S. Furthermore, any FR Pipe Wraps must be included.

There are two ways the pattress system can be installed, as follows:



# FAQ's

## GENERAL

**Q:** *What certifications are available?*

**A:** The Protecta® fire stopping range has ETA certifications and the CE-mark for Europe and Africa, UL-EU International certifications for Asia and South America and local certifications for the United Arab Emirates, New Zealand and Australia.

**Q:** *Where are the products manufactured?*

**A:** The Protecta® range is manufactured at the Polyseam factory in Huddersfield, United Kingdom.

## CONSTRUCTIONS

**Q:** *I am doing a fire seal in a drywall with calcium silicate boards and not normal gypsum boards, is that ok?*

**A:** Yes, as long as the wall is classified according to EN 13501-2 for the required fire resistance period, and the wall thickness is equal or greater than the approval for the fire stopping product.

**Q:** *I have a fire seal in a floor, can I use the approvals for a drywall?*

**A:** No. The EuroNorm states that fire seals in floors have to be tested and approved independently from walls.

**Q:** *Can approvals for drywalls be used in concrete walls?*

**A:** Yes. The EuroNorm allows this but tests and approvals for concrete or masonry walls cannot be used in drywalls.

**Q:** *I have a cable going through a drywall on one side and it does not penetrate the wall, however the instructions show only double sided fire seals?*

**A:** Use the normal instructions for double sided seals, the wall boards on the other side will do the same job as the fire seal which will result in a double sided fire seal.

**Q:** *I am to do a fire seal in a swimming pool area and need something moisture proof, what should I use?*

**A:** For smaller seals you can use either the Protecta FR IPT sealant or the FR Putty Cord. For larger seals you can use Protecta FR Board, but after you have sealed the gaps and openings with FR Acrylic, apply a layer of FR Coating on top of the acrylic.

**Q:** *Can the firestop details given in concrete floors be used in timber floors?*

**A:** No, that is not allowed.

## FIRE SEALS

**Q:** *Is it acceptable that instead of a minimum 100mm depth of Protecta EX mortar, I can use a 50mm stonewool slab with 50mm depth of mortar?*

**A:** No. But where 50mm depth of mortar on 50mm stonewool is mentioned, you can use 100mm depth of mortar instead and with no stone wool.

## FAQ's

**Q:** *Do I need to remove a shuttering stone wool board when the shutter is not shown as part of the approval for EX Mortar in a floor?*

**A:** No, the shutter will only increase the fire resistance.

**Q:** *A solution states a 12.5mm depth of Protecta FR Acrylic on a 12.5mm backing of stonewool, can I instead seal with 25mm FR Acrylic and skip the backing?*

**A:** Yes, the FR Acrylic will give better fire resistance than the stonewool backing material so if the total depth is the same or greater this is ok.

**Q:** *There is a solution for a double sided seal with FR Acrylic at 15mm depth in a rigid wall. Can I instead seal this single sided at 30mm depth?*

**A:** No. The fire seal will be weaker as the penetration speed of the fire will increase during heating of the material. With a double sided fire seal the fire has to effectively 'start again' when it meets the second seal. However, as a fire stopping solution it is better to do a single sided seal on both sides, resulting in a higher fire resistance.

**Q:** *It is stated that I use stonewool backing with Protecta FR Acrylic, can I instead use Protecta Backing material?*

**A:** Yes, the Protecta backing is made of AES fibre which has greater fire resistant than stonewool. However, if Protecta Backing is stated, you cannot use a stonewool backing.

**Q:** *I have a special fire seal that is not mentioned in any of the solutions, what do I do?*

**A:** Please contact us and we will assess if we can make an Engineering Judgment.

## CABLES

**Q:** *The instructions mention cables, but does that include all types of cables?*

**A:** Yes. We have tested groups of cables which gives approvals for all kinds, including aluminium, copper and fibre optic cables.

## PIPES

**Q:** *I have a penetrating pipe made of iron, but it is not mentioned in the instructions?*

**A:** Iron is the base metal of steel, so use the instructions for steel pipes.

**Q:** *I am to fire seal a PE-HD (or HD-PE) pipe, can I use the instructions for PE pipes?*

**A:** Yes. You can fire seal all PE pipes that are manufactured to EN 1519-1, EN 12201-2 and EN 12666-1. This normally includes LD-PE, MD-PE, HD-PE and PE-X pipes.

## FAQ's

**Q:** *It is stated 'alupex' pipes in the instructions; can I use Geberit Mepla MLC pipes?*

**A:** Yes. Alupex is a general term for composite aluminium pipes. They consist of an aluminium core that is covered on the inner and outer sides with thin plastic. Some alupex pipes on the market are:

- FRÄNKISCHE alpex F50 PROFI
- GEBERIT Mepla MLC
- JRG Sanipex MT
- KE KELIT Kelox
- REHAU Rautitan stabil
- TECEflex
- UPONOR MLC
- VIEGA Sanfix Fosta

**Q:** *I am to fire seal a Blazemaster cPVC pipe but I have heard it reacts with fire stopping products?*

**A:** Protecta FR Acrylic should be used; it has been independently tested and does not react with BlazeMaster or other cPVC pipes.



# Appendix I

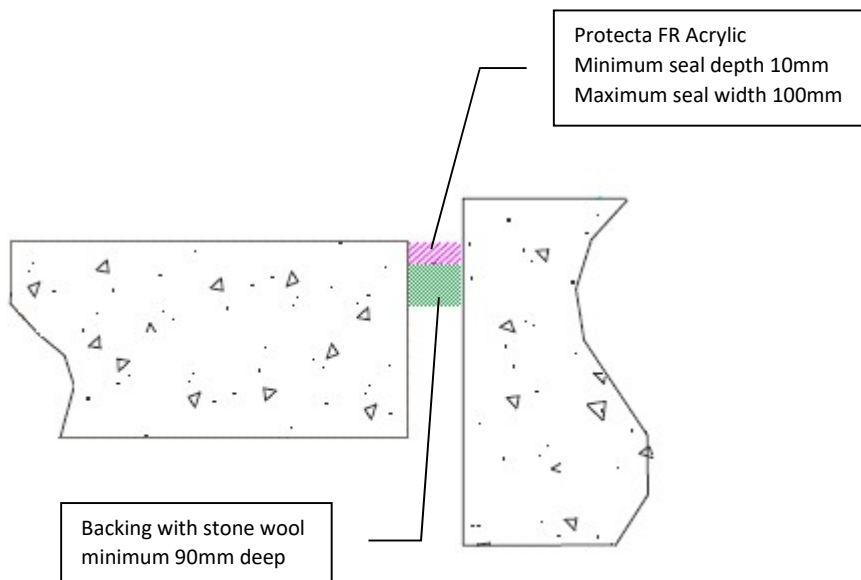
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## Linear seal solutions



Installation Instructions

1. Before installing Protecta® FR Acrylic ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Where Protecta® FR Acrylic is to be installed against surfaces that cannot tolerate direct contact; appropriate surface preparation should be made (contact Polyseam for guidance in these cases). For paints sensitive to sealing compounds, priming with a PVA primer is recommended.
3. When installing Protecta® FR Acrylic in hollow floor slabs or boards, fire seals specified as single sided should be installed from the soffit side of the floor assuming there is sufficient thickness of concrete below the void to follow the installation guide. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
4. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



ETA 13/0879 & 13/0880

As a part of our policy of on-going product development and testing, we reserve the right to modify, alter or change product specifications without giving notice. All information contained in this document is given in good faith and is provided for guidance only. Any drawings provided are for illustrative purposes only. As Polyseam has no control over the methods or competence of installation and of prevailing site conditions, no warranties, expressed or implied, is intended to be given as to the actual performance of the product mentioned or referred to herein and no liability whatsoever will be accepted for any loss, damage or injury arising from the use of the information given.

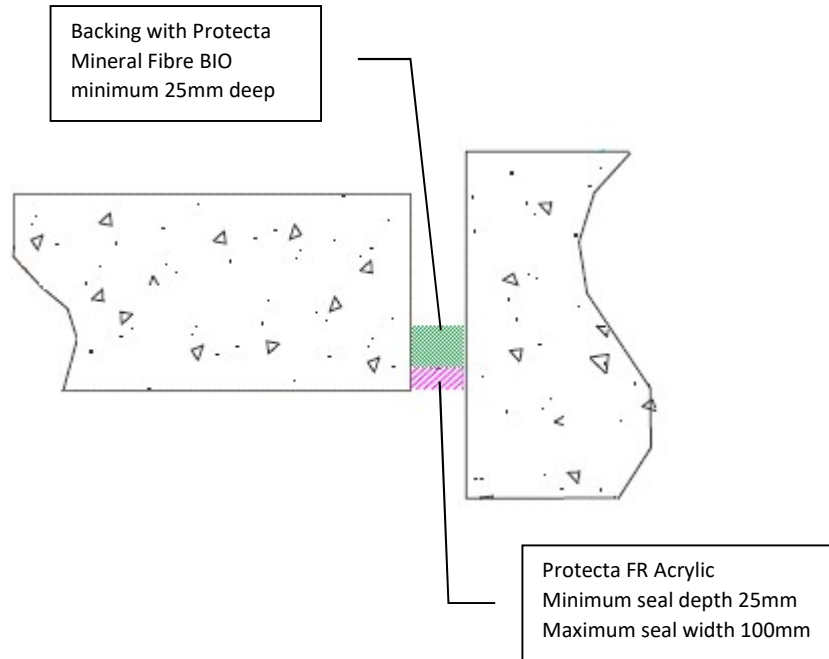
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Acrylic Stone wool
<b>Application</b>	Fire rated linear seals in rigid floors or between floors and walls
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup> .
<b>Fire &amp; Sound classification</b>	
Single sided top face position EI 240 & E 240	
Sound reduction (minimum 12mm depth) 62 dB	
Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
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6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

<b>Products</b>	Protecta FR Acrylic Protecta Mineral Fibre BIO
<b>Application</b>	Fire rated linear seals in rigid floors or between floors and walls
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup> .

<b>Fire &amp; Sound classification</b>	
Single sided soffit face position	EI 60 & E 120
Sound reduction (seal only)	62 dB

Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: post.uk@polyseam.com



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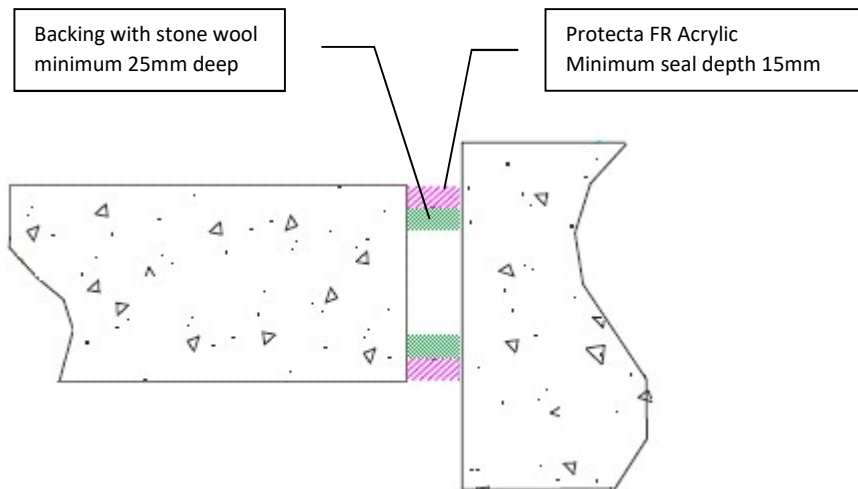
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

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3. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
4. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
5. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
6. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire rated linear seals in rigid floors or between floors and walls

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>.

**Fire & Sound classification**

Up to 100mm wide double sided seal with low density stone wool	EI 120 & E 120
Up to 100mm wide double sided seal with stone wool ≥ 140kg/m <sup>3</sup>	EI 180 & E 180
Up to 30mm wide double sided seal with low density stone wool	EI 240 & E 240
Sound reduction (seal only)	62 dB

**Protecta®**  
Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)



ETA 13/0879 & 13/0880

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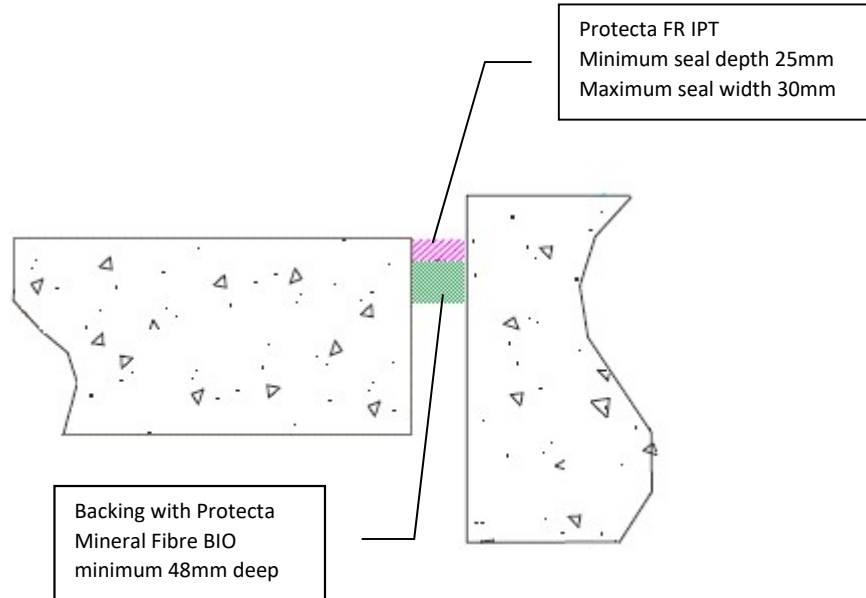
Signed and approved:

Sheet size: **A4** Drawn date & no: 24/5/18

Scale: **NTS** Drawn by: **K.B**

Installation Instructions

1. All surfaces must be clean and sound, free from dirt, grease and other contaminants. The surfaces may be damp but not running wet. Use a wet brush to clean surfaces before application to remove loose material and to ensure good contact for adhesion. Primers are not usually required.
2. Cut nozzle to the desired angle and gun firmly into the joint to give a good solid fill. Strike off the sealant flush with the joint sides within ten minutes of application, before surface skinning occurs. The sealant will have low shrinkage during cure and if a flush surface it is recommended to leave the sealant proud.
3. Protecta® FR IPT can be tooled to a smooth finish using a moist plastic stick or similar within 30 minutes of application. IPT Tooling designed for the optimum finish is recommended instead of soap and water as it forms a film between the stick and the sealant.
4. Do not spray the sealant with water or other fluids before skin formation (<30 min). Uncured sealant is soluble in water prior to skinning due to its environmentally friendly IPT chemistry that uses water instead of solvents.
5. Protecta® FR IPT can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR IPT  
Protecta Mineral Fibre BIO

**Application** Fire rated, water proof and movement linear seals in rigid floors or between floors and walls

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>.

**Fire, Sealant & Sound classification**

Single sided top face position  
EI 180 & E 240

Classification CE  
Facade (interior) 25HM  
Sanitary joints XS1

Sound reduction (seal only)  
62 dB

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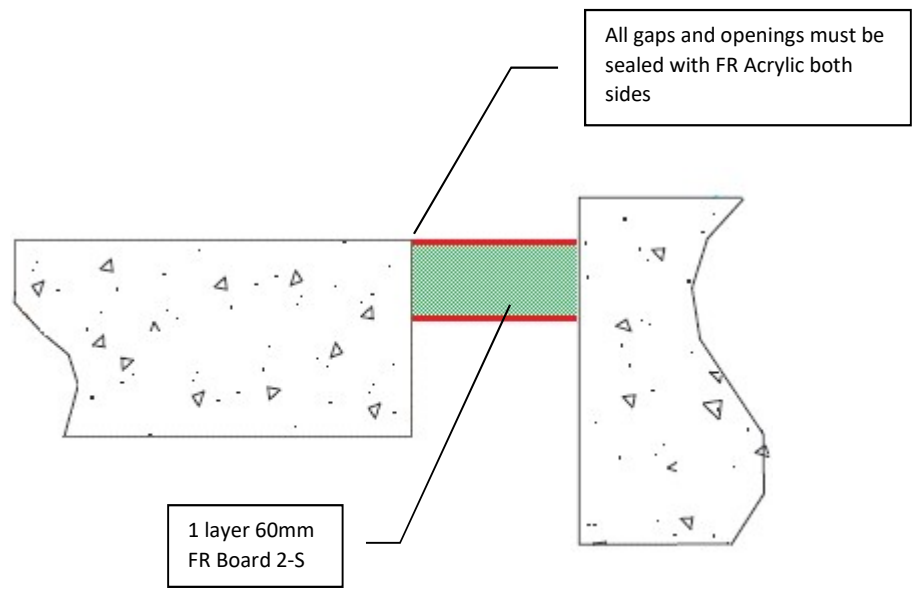
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Scale: **NTS**      Drawn by: K.B



Installation Instructions

1. Before installing Protecta® FR Board ensure that the surrounding construction is free from all loose contaminants, dust and grease.
2. The board can be positioned to either side of the construction or anywhere in between.
3. Cut the required board(s) to suit the linear seal width. All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Board  
Protecta FR Acrylic

**Application** Fire rated linear seals between floor slabs or between floor slab and wall

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>

**Fire & Sound classification**

Up to 120mm wide seal friction fitted at any position fully within the cavity  
EI 120 & E 240

Up to 800mm wide seal friction fitted at any position fully within the cavity  
EI 90 & E 120

Sound reduction (seal only)  
55 dB

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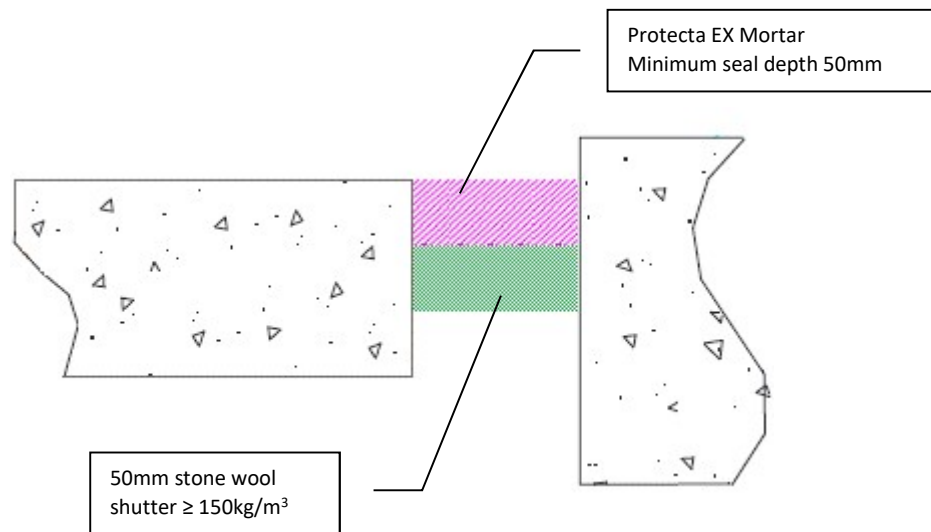
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Scale: **NTS** Drawn by: **K.B**



Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. Bare metal in contact with the seal must be protected against corrosion using a suitable primer/protection system.
3. The seal can be positioned to either side of the construction or anywhere in between.
4. When installing Protecta® EX Mortar in hollow floor slabs or boards, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab.
5. Install a stone wool shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal – any small openings should be sealed with Protecta® FR Acrylic
6. Pour clean water into a suitable mixing vessel and pour enough mortar to obtain the required consistency. Mix well to avoid lumps. Always add the mortar to the water, do not reverse this mixing process. For different mix ratios and drying times, please refer to the Technical Data Sheet.
7. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



Client:

Job Title:

**Products** Protecta EX Mortar  
Stone wool shutter

**Application** Fire rated linear seals between floor slabs or between floor slab and wall

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>

**Fire & Sound classification**

Up to 800mm wide seal at any position fully within the cavity  
EI 180 & E 180

Sound reduction (seal only)  
64 dB

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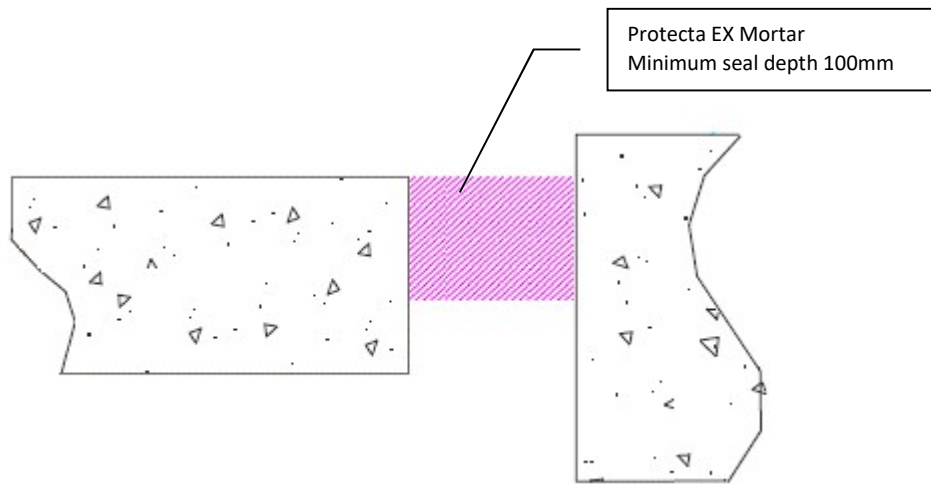
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Scale: **NTS**      Drawn by: **K.B**

Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. Bare metal in contact with the seal must be protected against corrosion using a suitable primer/protection system.
3. The seal can be positioned to either side of the construction or anywhere in between.
4. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
5. Install a shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal.
6. Pour clean water into a suitable mixing vessel and pour enough mortar to obtain the required consistency. Mix well to avoid lumps. Always add the mortar to the water, do not reverse this mixing process. For different mix ratios and drying times, please refer to the Technical Data Sheet.
7. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



**Loadbearing Properties**

Soft body impact, serviceability 500Nm. Soft body impact, safety in use 700Nm. Hard body impact serviceability 6Nm. Hard body impact, safety in use 10Nm. Concentrated load up to 15kN.




ETA 13/0672

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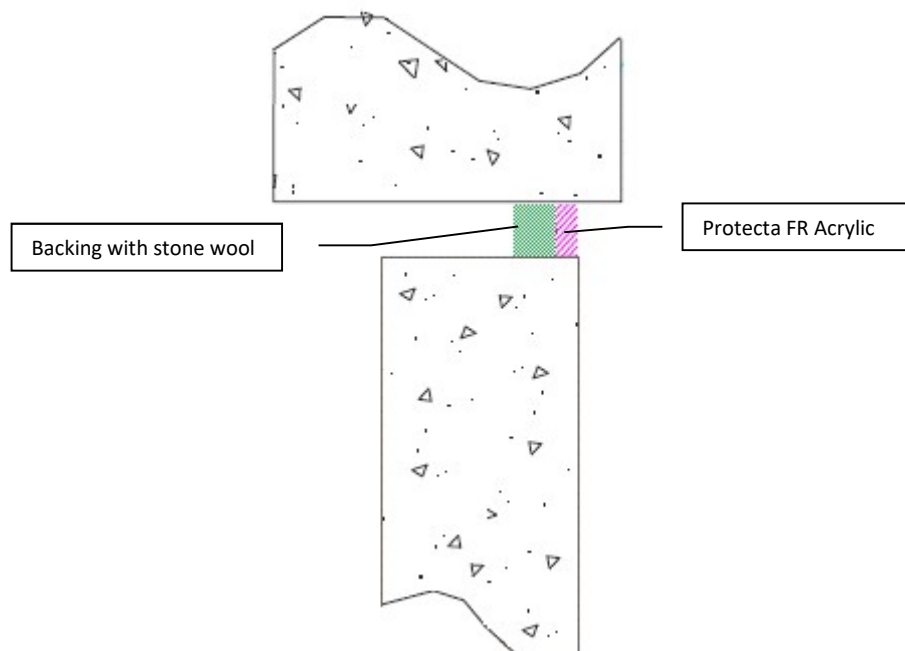
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta EX Mortar
<b>Application</b>	Fire rated and loadbearing linear seals between floor slabs or between floor slab and wall
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>
<b>Fire &amp; Sound classification</b>	
Up to 800mm wide seal at any position fully within the cavity	
EI 240 & E 240	
Sound reduction (seal only)	
64 dB	
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
<b>A4</b>	24/5/18
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Before installing Protecta® FR Acrylic ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Where Protecta® FR Acrylic is to be installed against surfaces that cannot tolerate direct contact; appropriate surface preparation should be made (contact Polyseam for guidance in these cases). For paints sensitive to sealing compounds, priming with a PVA primer is recommended.
3. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
4. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
5. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
6. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool  
**Application** Fire rated linear seals in rigid walls or between wall and floor  
**Construction** Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**  
Single sided horizontal seal with minimum seal depth 25mm, max seal width 30mm and backing minimum 20mm deep EI 60 & E 240  
Single sided horizontal seal with minimum seal depth 10mm, max seal width 50mm and backing minimum 60mm deep EI 60 & E 240  
Single sided vertical seal with minimum seal depth 10mm, max seal width 50mm and backing minimum 60mm deep EI 120 & E 120  
Sound reduction (minimum depth 12mm) 62 dB



ETA 13/0879 & 13/0880

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Huddersfield, West Yorkshire, HD1 6SB  
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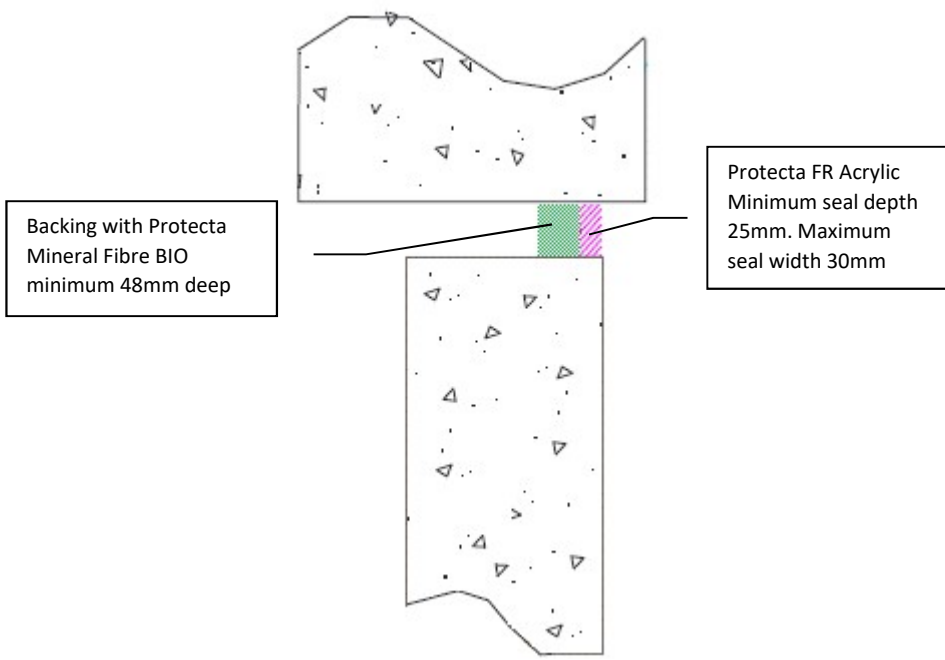
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Scale: **NTS** Drawn by: **K.B**

Installation Instructions

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2. Where Protecta® FR Acrylic is to be installed against surfaces that cannot tolerate direct contact; appropriate surface preparation should be made (contact Polyseam for guidance in these cases). For paints sensitive to sealing compounds, priming with a PVA primer is recommended.
3. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
4. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
5. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
6. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:	
Job Title:	
<b>Products</b>	Protecta FR Acrylic Protecta Mineral Fibre BIO
<b>Application</b>	Fire rated linear seals in rigid walls or between wall and floor
<b>Construction</b>	Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$
<b>Fire &amp; Sound classification</b>	
Single sided horizontal seal	EI 120 & E 240
Sound reduction (seal only)	62 dB
	
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ETA 13/0879 & 13/0880

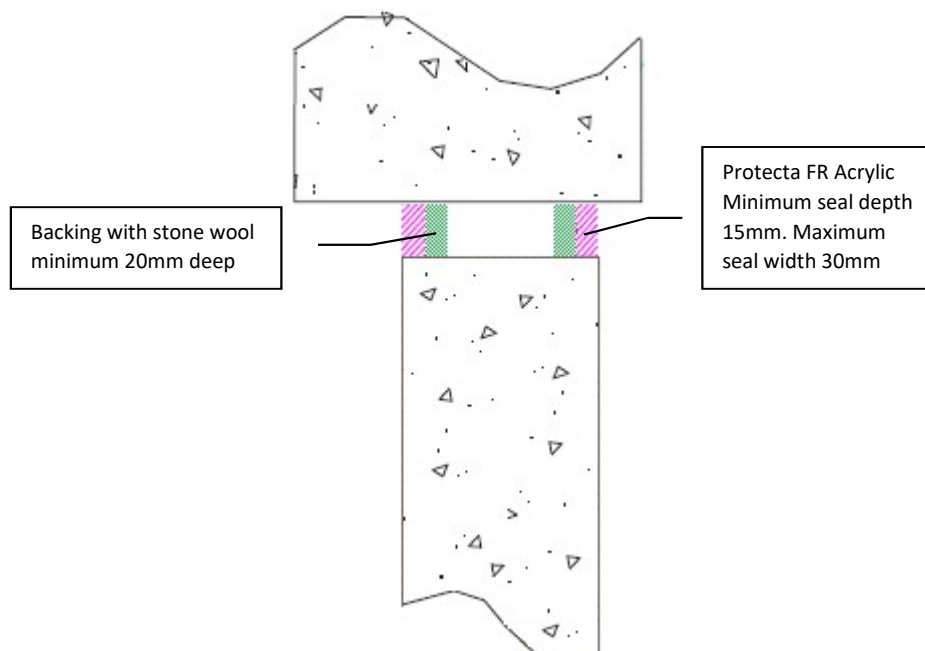
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Signed and approved:

Installation Instructions

1. Before installing Protecta® FR Acrylic ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Where Protecta® FR Acrylic is to be installed against surfaces that cannot tolerate direct contact; appropriate surface preparation should be made (contact Polyseam for guidance in these cases). For paints sensitive to sealing compounds, priming with a PVA primer is recommended.
3. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
4. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
5. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
6. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire rated linear seals in rigid walls or between wall and floor

**Construction** Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**

Double sided in horizontal or vertical seals  
EI 240 & E 240

Sound reduction (seal only)  
62 dB

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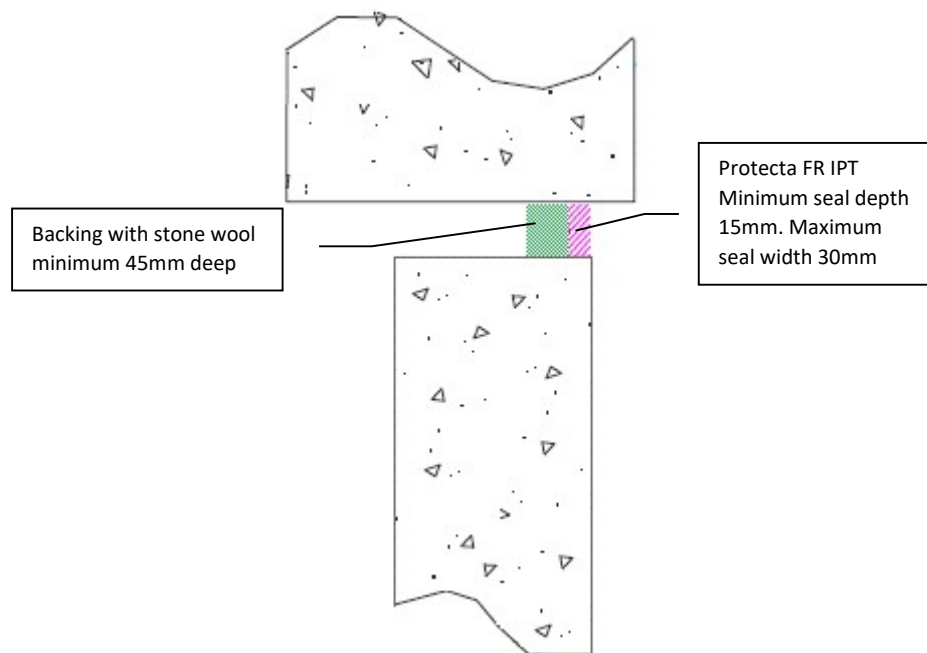
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24/5/18

Scale:  
**NTS**

Drawn by:  
K.B

Installation Instructions

1. All surfaces must be clean and sound, free from dirt, grease and other contaminants. The surfaces may be damp but not running wet. Use a wet brush to clean surfaces before application to remove loose material and to ensure good contact for adhesion. Primers are not usually required.
2. Cut nozzle to the desired angle and gun firmly into the joint to give a good solid fill. Strike off the sealant flush with the joint sides within ten minutes of application, before surface skinning occurs. The sealant will have low shrinkage during cure and if a flush surface it is recommended to leave the sealant proud.
3. Protecta® FR IPT can be tooled to a smooth finish using a moist plastic stick or similar within 30 minutes of application. IPT Tooling designed for the optimum finish is recommended instead of soap and water as it forms a film between the stick and the sealant.
4. Do not spray the sealant with water or other fluids before skin formation (<30 min). Uncured sealant is soluble in water prior to skinning due to its environmentally friendly IPT chemistry that uses water instead of solvents.
5. Protecta® FR IPT can be over-painted with most emulsion or alkyd (gloss) paints.




ETA 18/0902

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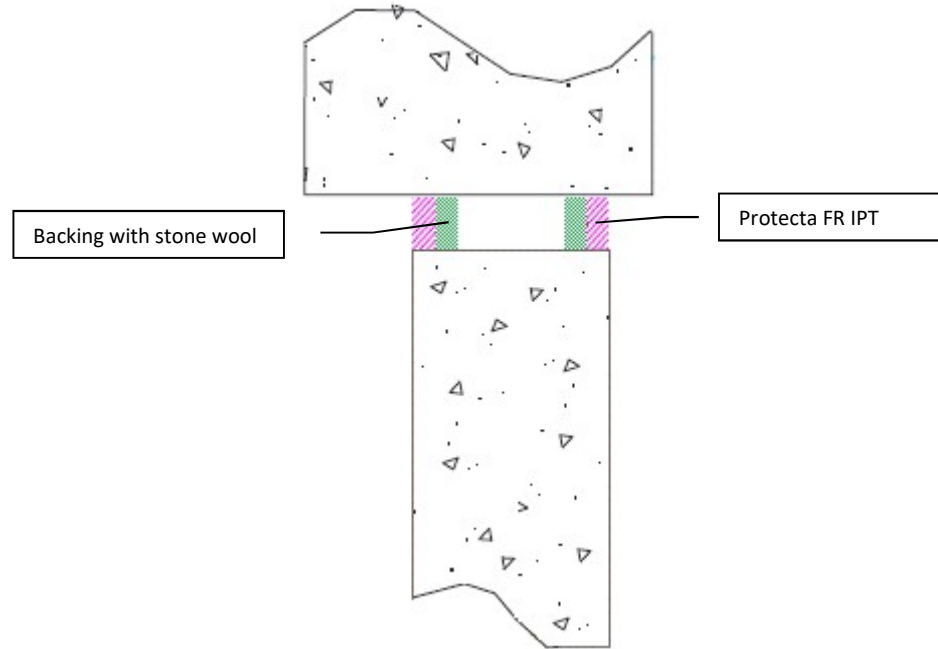
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Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR IPT Stone wool
<b>Application</b>	Fire rated, water proof and movement linear seals in rigid walls or between wall and floor
<b>Construction</b>	Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$
<b>Fire &amp; Sound classification</b>	
Single sided in horizontal seals	EI 60 & E 240
Classification CE	Facade (interior) 25HM Sanitary joints XS1
Sound reduction (seal only)	62 dB
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
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<b>A4</b>	9/7/19
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. All surfaces must be clean and sound, free from dirt, grease and other contaminants. The surfaces may be damp but not running wet. Use a wet brush to clean surfaces before application to remove loose material and to ensure good contact for adhesion. Primers are not usually required.
2. Cut nozzle to the desired angle and gun firmly into the joint to give a good solid fill. Strike off the sealant flush with the joint sides within ten minutes of application, before surface skinning occurs. The sealant will have low shrinkage during cure and if a flush surface it is recommended to leave the sealant proud.
3. Protecta® FR IPT can be tooled to a smooth finish using a moist plastic stick or similar within 30 minutes of application. IPT Tooling designed for the optimum finish is recommended instead of soap and water as it forms a film between the stick and the sealant.
4. Do not spray the sealant with water or other fluids before skin formation (<30 min). Uncured sealant is soluble in water prior to skinning due to its environmentally friendly IPT chemistry that uses water instead of solvents.
5. Protecta® FR IPT can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR IPT  
Stone wool  
**Application** Fire rated, water proof and movement linear seals in rigid walls or between wall and floor  
**Construction** Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire, Sealant & Sound classification**  
Double sided horizontal or vertical seals with minimum seal depth 12.5mm, max seal width 30mm and backing minimum 12.5mm deep EI 120 & E 120  
Double sided horizontal seals with minimum seal depth 15mm, max seal width 30mm and backing minimum 45mm deep EI 240 & E 240  
Classification CE Facade (interior) 25HM Sanitary joints XS1  
Sound reduction (seal only) 62 dB



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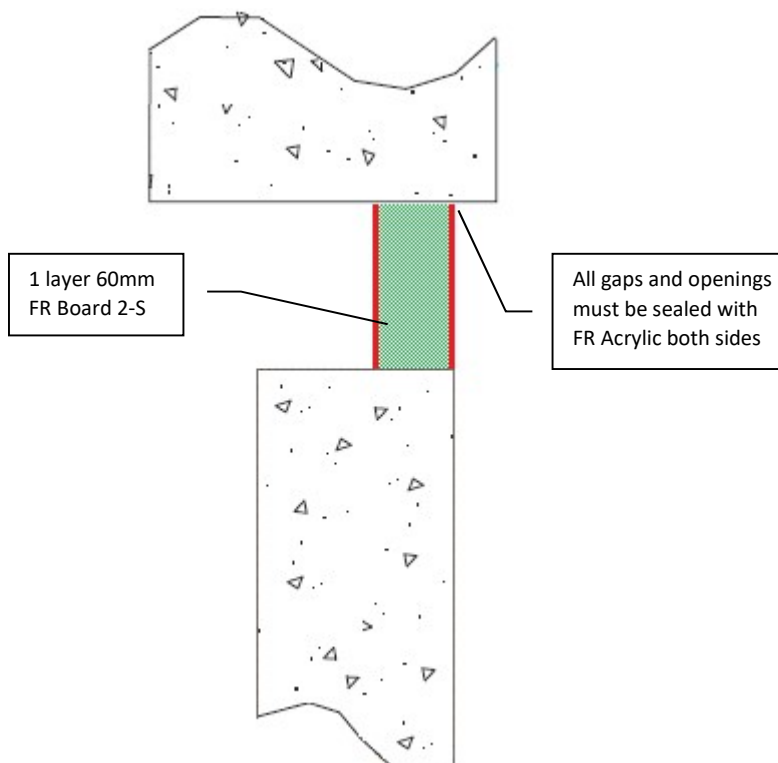
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Sheet size: <b>A4</b>	Drawn date & no: 9/7/19
Scale: <b>NTS</b>	Drawn by: K.B

Installation Instructions

1. Before installing Protecta® FR Board ensure that the surrounding construction is free from all loose contaminants, dust and grease.
2. The board can be positioned to either side of the construction or anywhere in between.
3. Cut the required board(s) to suit the linear seal width. All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Board  
Protecta FR Acrylic

**Application** Fire rated linear seals in rigid walls or between wall and floor

**Construction** Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**

Up to 1200mm wide horizontal seals friction fitted at any position fully within the cavity  
EI 90 & E 240

Sound reduction (seal only) 55 dB

Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
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ETA 13/0673

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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

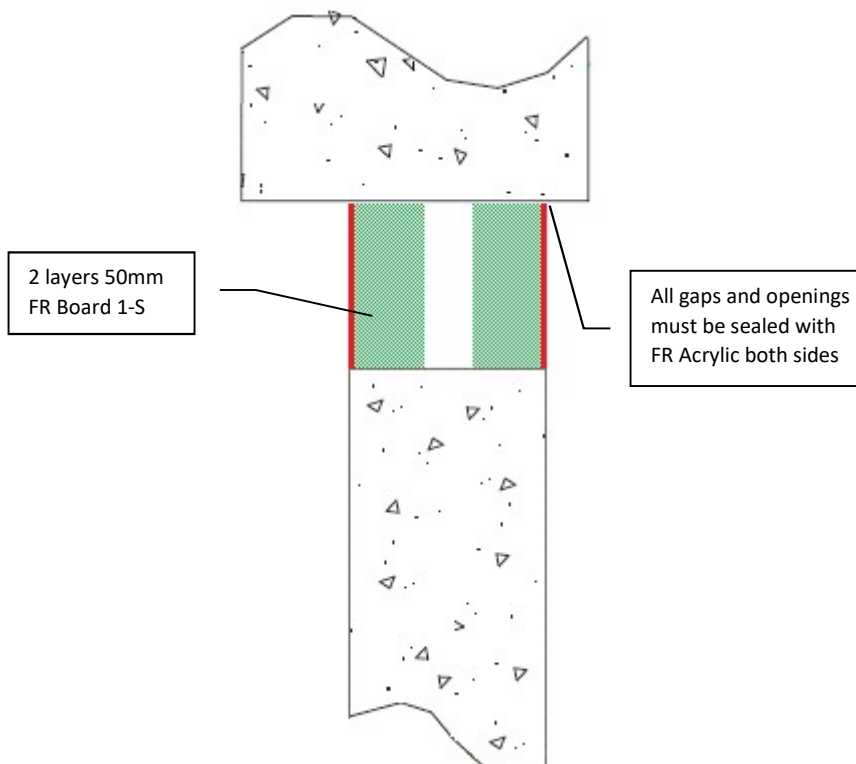
Sheet size: **A4** Drawn date & no: 24/5/18

Scale: **NTS** Drawn by: **K.B**



Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The boards should be flush with the surface of the construction on both sides to maximize the fire resistance.
3. Cut the required board(s) to suit the linear seal width. All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Board  
Protecta FR Acrylic

**Application** Fire rated linear seals in rigid walls or between wall and floor

**Construction** Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**

Up to 1200mm wide horizontal seals friction fitted at any position fully within the cavity  
EI 120 & E 120

Sound reduction (seal only) 55 dB

Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: post.uk@polyseam.com



ETA 13/0673

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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

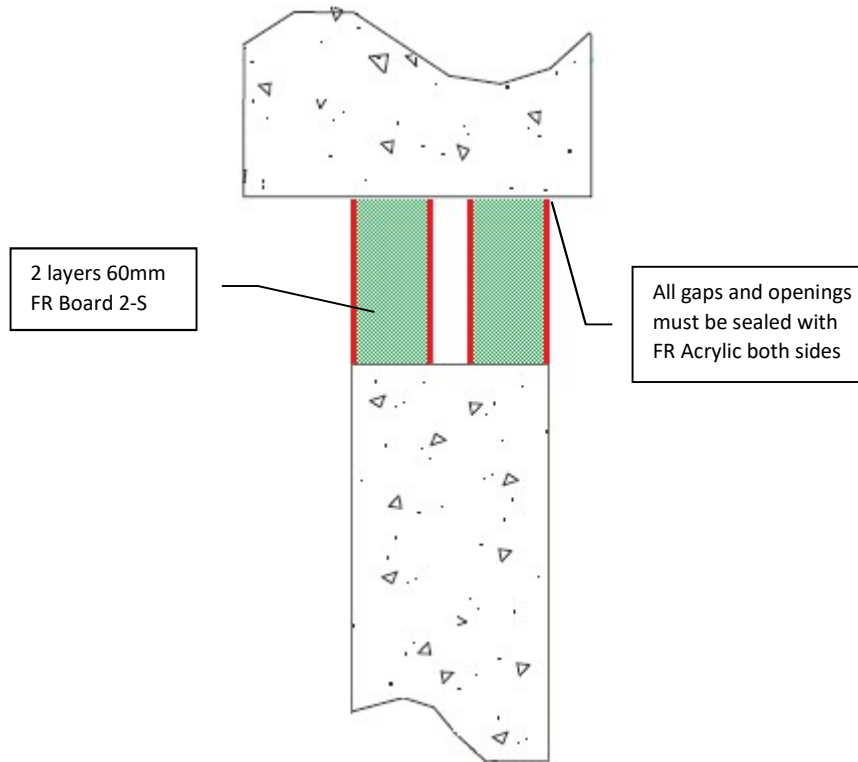
Signed and approved:

Sheet size: **A4** Drawn date & no: 24/5/18

Scale: **NTS** Drawn by: **K.B**

Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The boards should be flush with the surface of the construction on both sides to maximize the fire resistance. If this is not possible, there should be an air gap of at least 30mm between the boards.
3. Cut the required board(s) to suit the linear seal width. All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Board  
Protecta FR Acrylic

**Application** Fire rated linear seals in rigid walls or between wall and floor

**Construction** Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**

Up to 1200mm wide horizontal seals flush with the surface on both sides fully within the cavity  
EI 180 & E 240

Sound reduction (seal only) 55 dB

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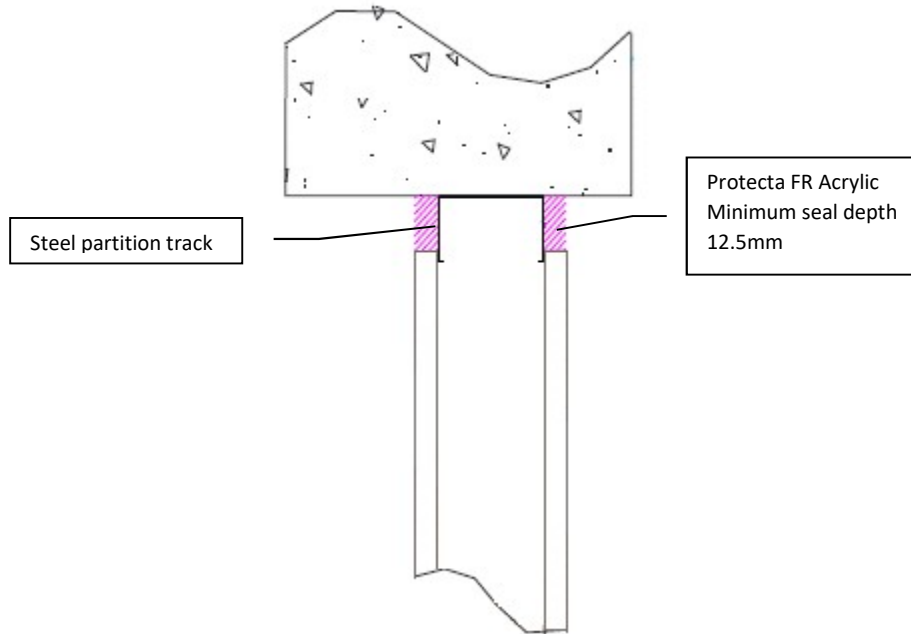
Signed and approved:

Sheet size: **A4** Drawn date & no: 24/5/18

Scale: **NTS** Drawn by: **K.B**

Installation Instructions

1. Before installing Protecta® FR Acrylic ensure that the surface of all surrounding construction is free from all loose contaminants, dust and grease.
2. Where Protecta® FR Acrylic is to be installed against surfaces that cannot tolerate direct contact; appropriate surface preparation should be made (contact Polyseam for guidance in these cases). For paints sensitive to sealing compounds, priming with a PVA primer is recommended.
3. When installing the sealant in gypsum boards, the exposed edges of the board can be wetted with water, or Protecta® FR Acrylic diluted with water to prime the surfaces helping adhesion and preventing excessive joint shrinkage.
4. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
5. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
6. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

<b>Products</b>	Protecta FR Acrylic
<b>Application</b>	Fire rated linear seals in flexible walls
<b>Construction</b>	Minimum wall thickness of 75 mm and comprise steel studs or timber studs* lined on both faces with minimum 1 layer of 12.5 mm thick boards.

<b>Fire &amp; Sound classification</b>	
Both sides in horizontal seals with maximum seal width 25mm	EI 45 & E 60
Both sides in vertical seals with maximum seal width 15mm	EI 45 & E 60
Sound reduction (seal only)	62 dB

**Protecta**  
 Polyseam Ltd, 15 St Andrews Road,  
 Huddersfield, West Yorkshire, HD1 6SB  
 Tel: +44 (0) 148 4421036  
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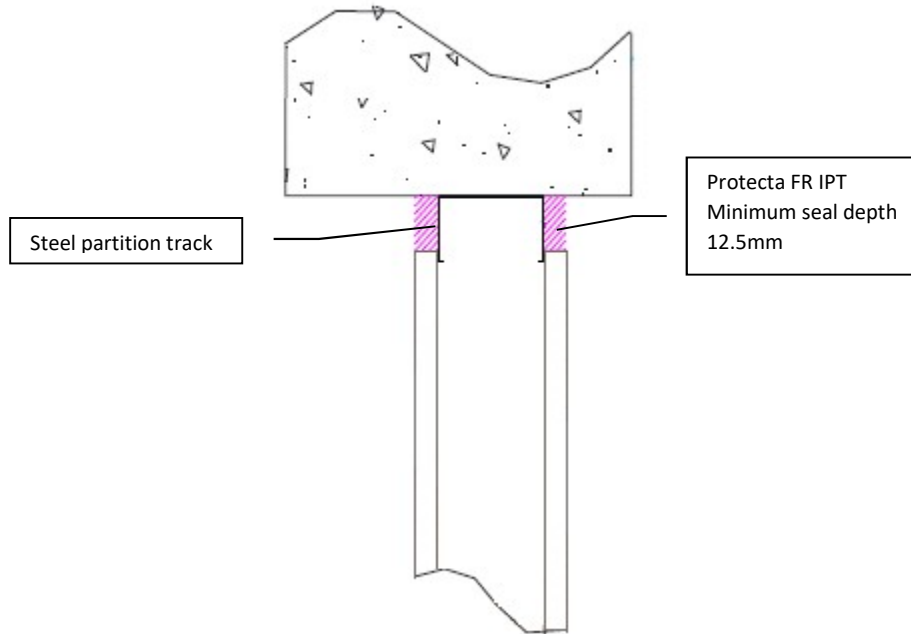
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Sheet size: <b>A4</b>	Drawn date & no: 8/4/18
Scale: <b>NTS</b>	Drawn by: K.B

Installation Instructions

1. All surfaces must be clean and sound, free from dirt, grease and other contaminants. The surfaces may be damp but not running wet. Use a wet brush to clean surfaces before application to remove loose material and to ensure good contact for adhesion. Primers are not usually required.
2. Cut nozzle to the desired angle and gun firmly into the joint to give a good solid fill. Strike off the sealant flush with the joint sides within ten minutes of application, before surface skinning occurs. The sealant will have low shrinkage during cure and if a flush surface it is recommended to leave the sealant proud.
3. Protecta® FR IPT can be tooled to a smooth finish using a moist plastic stick or similar within 30 minutes of application. IPT Tooling designed for the optimum finish is recommended instead of soap and water as it forms a film between the stick and the sealant.
4. Do not spray the sealant with water or other fluids before skin formation (<30 min). Uncured sealant is soluble in water prior to skinning due to its environmentally friendly IPT chemistry that uses water instead of solvents.
5. Protecta® FR IPT can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

<b>Products</b>	Protecta FR IPT
<b>Application</b>	Fire rated, water proof and movement linear seals in flexible walls
<b>Construction</b>	Minimum wall thickness of 75 mm and comprise steel studs or timber studs* lined on both faces with minimum 1 layer of 12.5 mm thick boards.

<b>Fire &amp; Sound classification</b>	
Both sides in horizontal seals with maximum seal width 25mm EI 45 & E 60	
Classification CE	Facade (interior) 25HM Sanitary joints XS1
Sound reduction (seal only)	62 dB

**Protecta**  
 Polyseam Ltd, 15 St Andrews Road,  
 Huddersfield, West Yorkshire, HD1 6SB  
 Tel: +44 (0) 148 4421036  
 Email: post.uk@polyseam.com



ETA 18/0902

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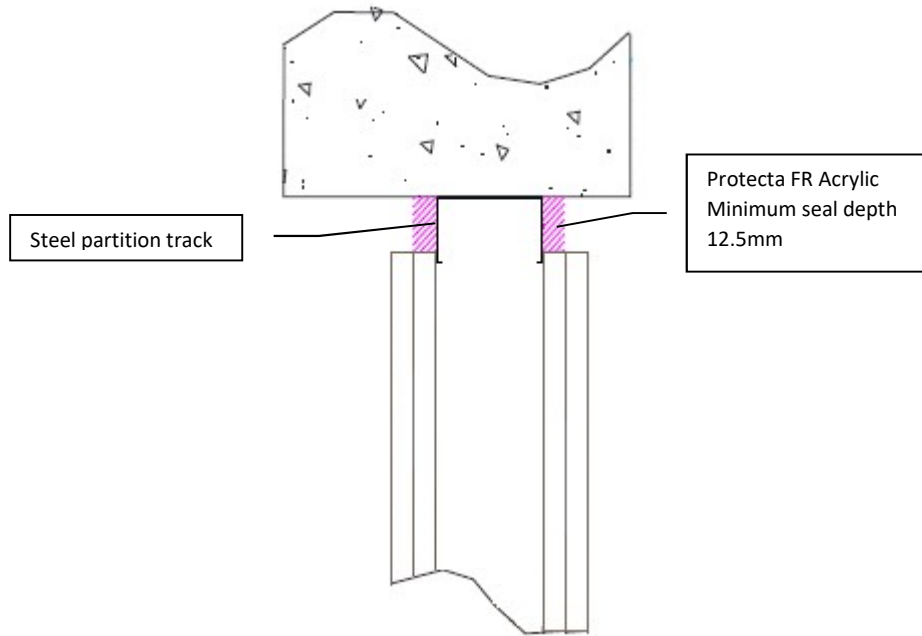
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Sheet size: <b>A4</b>	Drawn date & no: 2/7/19
Scale: <b>NTS</b>	Drawn by: K.B

Installation Instructions

1. Before installing Protecta® FR Acrylic ensure that the surface of all surrounding construction is free from all loose contaminants, dust and grease.
2. Where Protecta® FR Acrylic is to be installed against surfaces that cannot tolerate direct contact; appropriate surface preparation should be made (contact Polyseam for guidance in these cases). For paints sensitive to sealing compounds, priming with a PVA primer is recommended.
3. When installing the sealant in gypsum boards, the exposed edges of the board can be wetted with water, or Protecta® FR Acrylic diluted with water to prime the surfaces helping adhesion and preventing excessive joint shrinkage.
4. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
5. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
6. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
**Application** Fire rated linear seals in flexible walls  
**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards.

**Fire & Sound classification**  
 Both sides in horizontal seals with maximum seal width 25mm EI 90 & E 90  
 Both sides in vertical seals with maximum seal width 15mm EI 90 & E 90  
 Sound reduction (seal only) 62 dB

Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB  
 Tel: +44 (0) 148 4421036  
 Email: post.uk@polyseam.com



ETA 13/0879 & 13/0880

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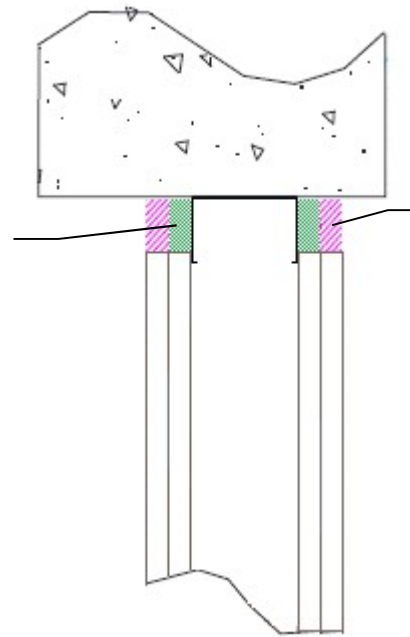
Signed and approved:

Sheet size: <b>A4</b>	Drawn date & no: 8/4/18
Scale: <b>NTS</b>	Drawn by: K.B

Installation Instructions

1. Before installing Protecta® FR Acrylic ensure that the surface of all surrounding construction is free from all loose contaminants, dust and grease.
2. Where Protecta® FR Acrylic is to be installed against surfaces that cannot tolerate direct contact; appropriate surface preparation should be made (contact Polyseam for guidance in these cases). For paints sensitive to sealing compounds, priming with a PVA primer is recommended.
3. When installing the sealant in gypsum boards, the exposed edges of the board can be wetted with water, or Protecta® FR Acrylic diluted with water to prime the surfaces helping adhesion and preventing excessive joint shrinkage.
4. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.

Backing with mineral stone wool minimum 12.5mm deep against steel partition track



Protecta FR Acrylic  
Minimum seal depth  
12.5mm

Client:

Job Title:

<b>Products</b>	Protecta FR Acrylic Stone wool
<b>Application</b>	Fire rated linear seals in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards.

<b>Fire &amp; Sound classification</b>	
Both sides in horizontal seals with maximum seal width 30mm	EI 120 & E 120
Both sides in vertical seals with maximum seal width 15mm	EI 90 & E 90
Sound reduction (seal only)	62 dB

**Protecta**  
Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: post.uk@polyseam.com



ETA 13/0879 & 13/0880

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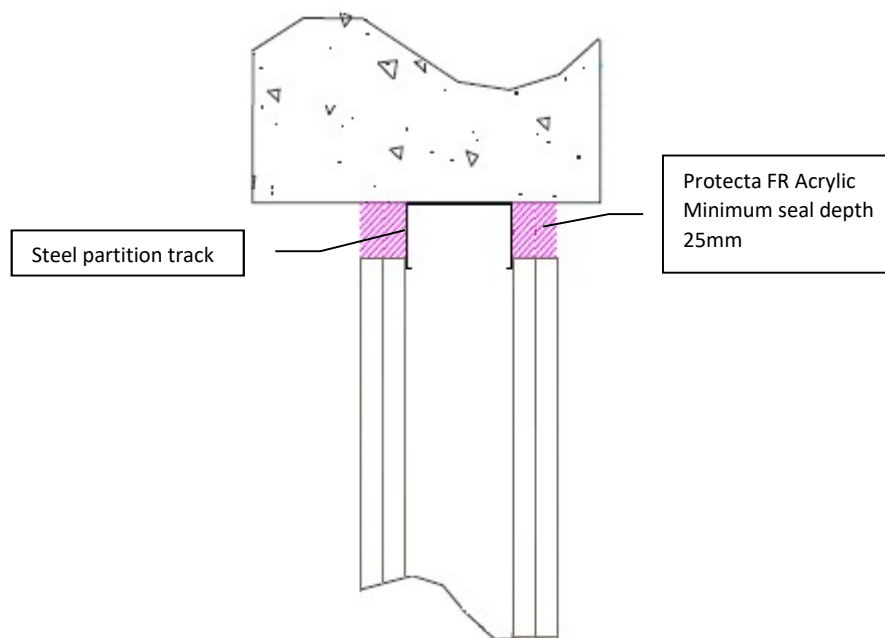
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Sheet size: <b>A4</b>	Drawn date & no: 8/4/18
Scale: <b>NTS</b>	Drawn by: K.B

Installation Instructions

1. Before installing Protecta® FR Acrylic ensure that the surface of all surrounding construction is free from all loose contaminants, dust and grease.
2. Where Protecta® FR Acrylic is to be installed against surfaces that cannot tolerate direct contact; appropriate surface preparation should be made (contact Polyseam for guidance in these cases). For paints sensitive to sealing compounds, priming with a PVA primer is recommended.
3. When installing the sealant in gypsum boards, the exposed edges of the board can be wetted with water, or Protecta® FR Acrylic diluted with water to prime the surfaces helping adhesion and preventing excessive joint shrinkage.
4. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
5. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
6. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

<b>Products</b>	Protecta FR Acrylic
<b>Application</b>	Fire rated linear seals in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards.

<b>Fire &amp; Sound classification</b>	
Both sides in horizontal seals with maximum seal width 30mm	EI 120 & E 120
Both sides in vertical seals with maximum seal width 15mm	EI 90 & E 90
Sound reduction (seal only)	62 dB

**Protecta**  
 Polyseam Ltd, 15 St Andrews Road,  
 Huddersfield, West Yorkshire, HD1 6SB  
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ETA 13/0879 & 13/0880

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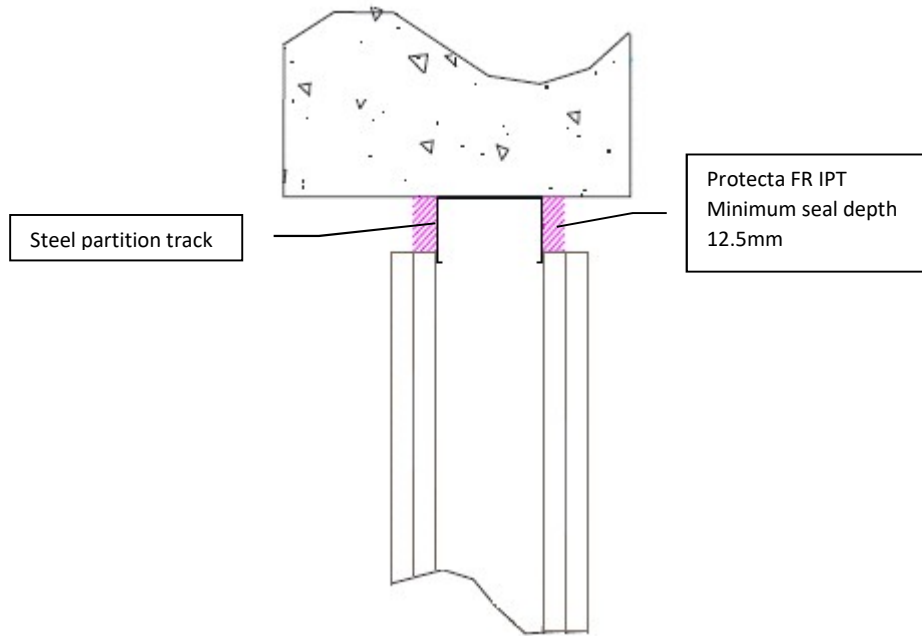
Signed and approved:

Sheet size: <b>A4</b>	Drawn date & no: 8/4/18
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Scale: <b>NTS</b>	Drawn by: K.B
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Installation Instructions

1. All surfaces must be clean and sound, free from dirt, grease and other contaminants. The surfaces may be damp but not running wet. Use a wet brush to clean surfaces before application to remove loose material and to ensure good contact for adhesion. Primers are not usually required.
2. Cut nozzle to the desired angle and gun firmly into the joint to give a good solid fill. Strike off the sealant flush with the joint sides within ten minutes of application, before surface skinning occurs. The sealant will have low shrinkage during cure and if a flush surface it is recommended to leave the sealant proud.
3. Protecta® FR IPT can be tooled to a smooth finish using a moist plastic stick or similar within 30 minutes of application. IPT Tooling designed for the optimum finish is recommended instead of soap and water as it forms a film between the stick and the sealant.
4. Do not spray the sealant with water or other fluids before skin formation (<30 min). Uncured sealant is soluble in water prior to skinning due to its environmentally friendly IPT chemistry that uses water instead of solvents.
5. Protecta® FR IPT can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

<b>Products</b>	Protecta FR IPT
<b>Application</b>	Fire rated, water proof and movement linear seals in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards.

<b>Fire &amp; Sound classification</b>	
Both sides in horizontal seals with maximum seal width 25mm	EI 60 & E 90
Both sides in vertical seals with maximum seal width 15mm	EI 120 & E 120
Classification CE	Facade (interior) 25HM Sanitary joints XS1
Sound reduction (seal only)	62 dB

**Protecta®**  
 Polyseam Ltd, 15 St Andrews Road,  
 Huddersfield, West Yorkshire, HD1 6SB  
 Tel: +44 (0) 148 4421036  
 Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)



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Signed and approved:

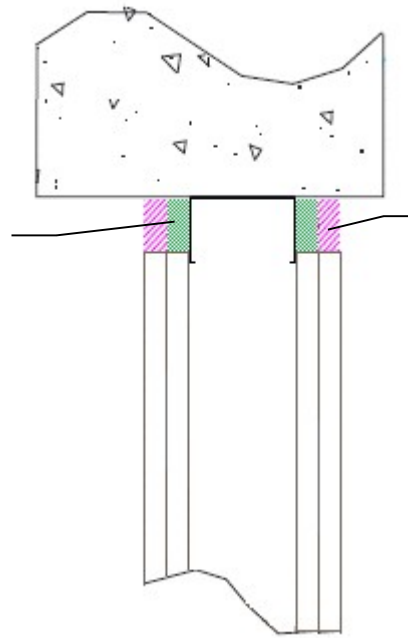
Sheet size: <b>A4</b>	Drawn date & no: 8/7/19
Scale: <b>NTS</b>	Drawn by: K.B



Installation Instructions

1. All surfaces must be clean and sound, free from dirt, grease and other contaminants. The surfaces may be damp but not running wet. Use a wet brush to clean surfaces before application to remove loose material and to ensure good contact for adhesion. Primers are not usually required.
2. Cut nozzle to the desired angle and gun firmly into the joint to give a good solid fill. Strike off the sealant flush with the joint sides within ten minutes of application, before surface skinning occurs. The sealant will have low shrinkage during cure and if a flush surface it is recommended to leave the sealant proud.
3. Protecta® FR IPT can be tooled to a smooth finish using a moist plastic stick or similar within 30 minutes of application. IPT Tooling designed for the optimum finish is recommended instead of soap and water as it forms a film between the stick and the sealant.
4. Do not spray the sealant with water or other fluids before skin formation (<30 min). Uncured sealant is soluble in water prior to skinning due to its environmentally friendly IPT chemistry that uses water instead of solvents.
5. Protecta® FR IPT can be over-painted with most emulsion or alkyd (gloss) paints.

Backing with mineral stone wool minimum 12.5mm deep against steel partition track



Protecta FR IPT  
Minimum seal depth 12.5mm

Client:

Job Title:

<b>Products</b>	Protecta FR IPT Stone wool
<b>Application</b>	Fire rated, water proof and movement linear seals in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards.

<b>Fire, Sealant &amp; Sound classification</b>	
Both sides in horizontal and vertical seals with maximum seal width 30mm EI 120 & E 120	
Classification CE	Facade (interior) 25HM Sanitary joints XS1
Sound reduction (seal only)	62 dB



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Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: post.uk@polyseam.com

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ETA 18/0902

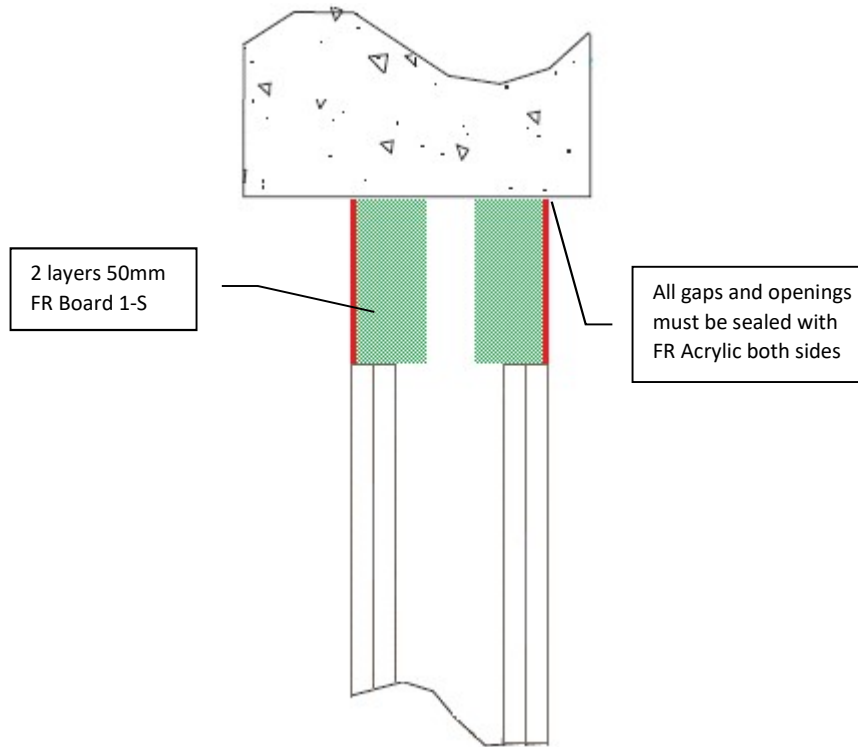
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Signed and approved:

Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The coated side of the board should be flush with the surface of the gypsum on both sides. In seals longer than 2400mm, uninterrupted separating studs will be required at 2400mm centres or less.
3. Cut the required board(s) to suit the linear seal width. All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Board  
Protecta FR Acrylic

**Application** Fire rated linear seals in flexible walls

**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**

Up to 1200mm wide horizontal seals flush with the surface on both sides fully within the cavity  
EI 120 & E 120

Sound reduction (seal only) 55 dB

Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: post.uk@polyseam.com



ETA 13/0673

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Signed and approved:

Sheet size: **A4** Drawn date & no: 24/5/18

Scale: **NTS** Drawn by: K.B

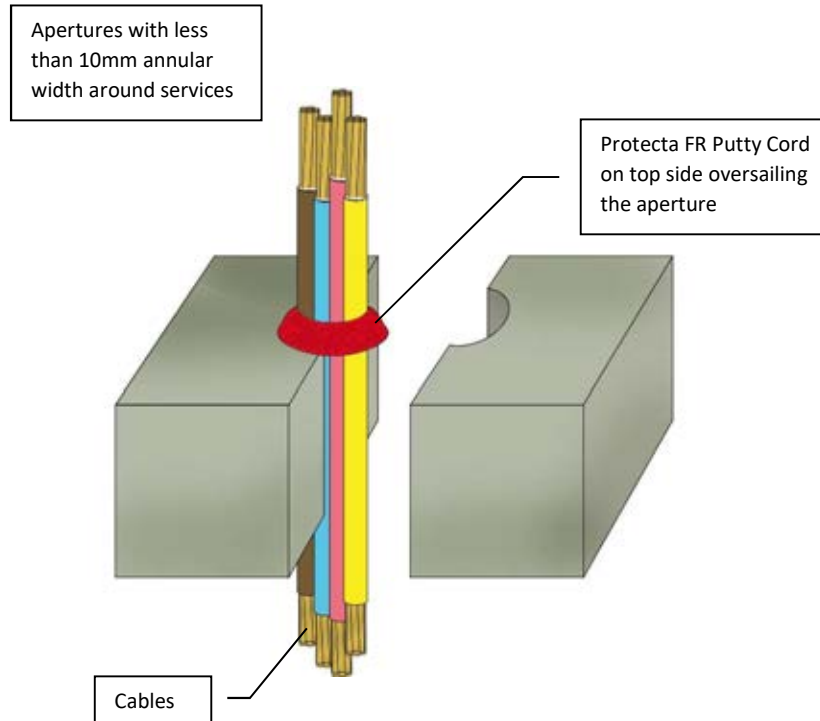
## Appendix II

-

Service penetration solutions with gaps  $\leq 10\text{mm}$

**Installation Instructions**

1. Before installing Protecta® FR Putty Cord ensure that the surface of all service penetrations and surrounding construction is wiped clean, dry, free from all loose contaminants, dust, oils and grease.
2. Place the Putty Cord around the services so that it seals the services to the floor all the way round.
3. Press the Putty Cord into the floor and services with your thumbs to form a fillet or V shape joint, ensuring good contact is made all the way round the services and the floor.



ETA 16/0322

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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:

Job Title:

<b>Products</b>	Protecta FR Putty Cord Ø15mm
<b>Application</b>	Fire stopping of cables in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>

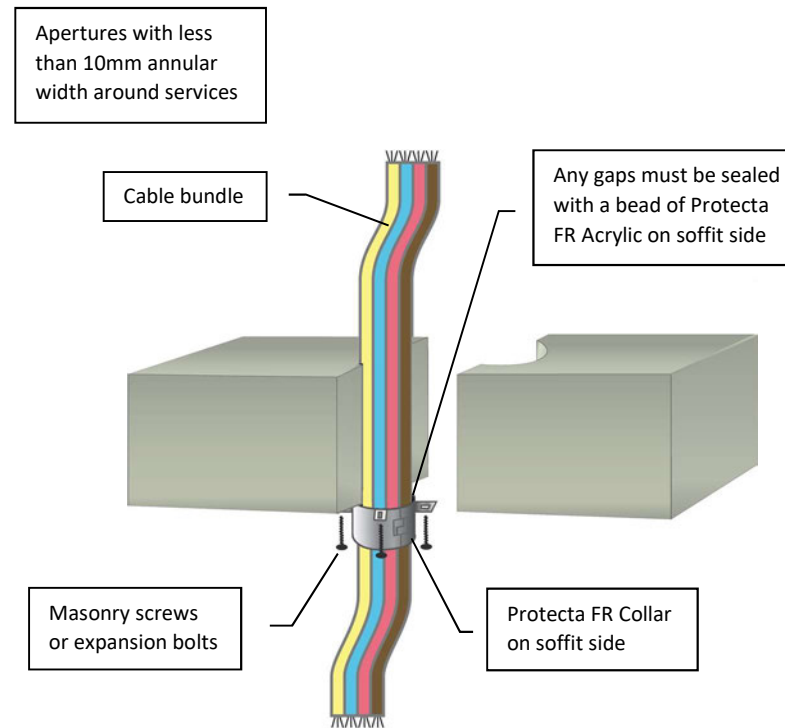
<b>Fire &amp; Sound classification</b>	
Single cables ≤ Ø 21mm	EI 120 & E 120
Single cables ≤ Ø 50mm	EI 90 & E 120
Single cables ≤ Ø 80mm	EI 60 & E 120
Cables ≤ Ø 21mm in tied bundles ≤ Ø 50mm	EI 60 & E 120

Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

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Scale: <b>NTS</b>	Drawn by: K.B

Installation Instructions

1. Before fitting the collar ensure that any gaps between the cable bundle and the separating element are sealed with a bead of Protecta® FR Acrylic to cover the opening.
2. Place a suitable collar around the cable bundle and ensure that the collar shell and fixing lugs are positioned tightly to the surface of the floor, so that the fixings can be inserted fully.
3. Where the surface is uneven, apply a sealing bead of Protecta® FR Acrylic between the floor and the collar shell.
4. Attach the collar with  $\geq \text{Ø}4 \times 40\text{mm}$  long masonry screws or expansion bolts.



Client:

Job Title:

**Products** Protecta FR Collar  
Protecta FR Acrylic

**Application** Fire stopping of plastic pipes in rigid floors

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>

**Fire & Sound classification**

Cables  $\leq \text{Ø} 21\text{mm}$ , in a bundle  $\leq \text{Ø}55\text{mm}$ , with collars  $\leq \text{Ø}55\text{mm}$  at  $\geq 30\text{mm}$  height  
EI 120 & E 120

Cables  $\leq \text{Ø} 21\text{mm}$ , in a bundle  $\leq \text{Ø}100\text{mm}$ , with collars  $\leq \text{Ø}110\text{mm}$  at  $\geq 50\text{mm}$  height  
EI 90 & E 90

Cables  $\leq \text{Ø} 21\text{mm}$ , in a bundle  $\leq \text{Ø}160\text{mm}$ , with collars  $\leq \text{Ø}160\text{mm}$  at  $\geq 60\text{mm}$  height  
EI 180 & E 180

Sound reduction (seal only) 58dB

Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: post.uk@polyseam.com



ETA 18/0854

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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

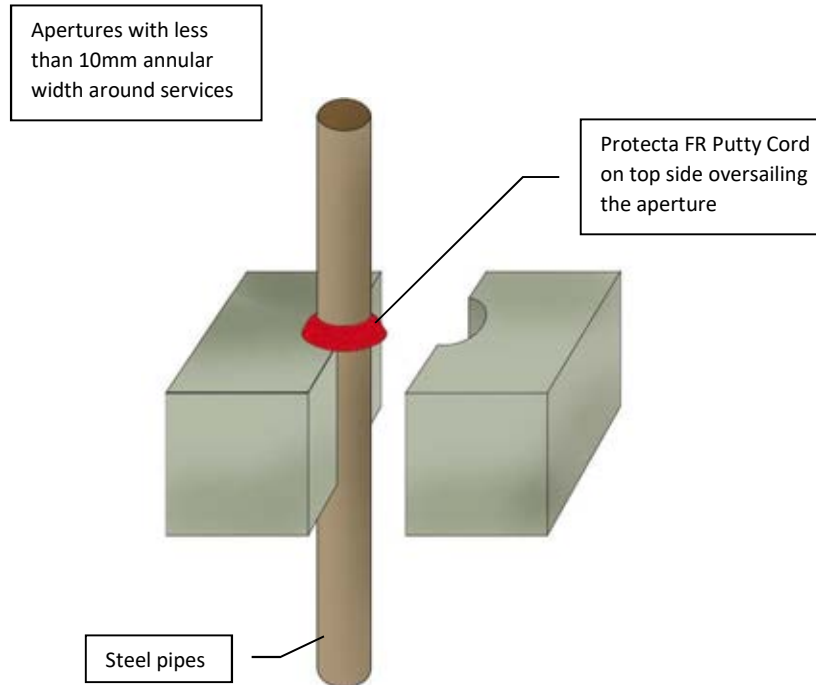
Signed and approved:

Sheet size: **A4** Drawn date & no: 27/7/19

Scale: **NTS** Drawn by: K.B

**Installation Instructions**

1. Before installing Protecta® FR Putty Cord ensure that the surface of all service penetrations and surrounding construction is wiped clean, dry, free from all loose contaminants, dust, oils and grease.
2. Place the Putty Cord around the services so that it seals the services to the floor all the way round.
3. Press the Putty Cord into the floor and services with your thumbs to form a fillet or V shape joint, ensuring good contact is made all the way round the services and the floor.




ETA 16/0322

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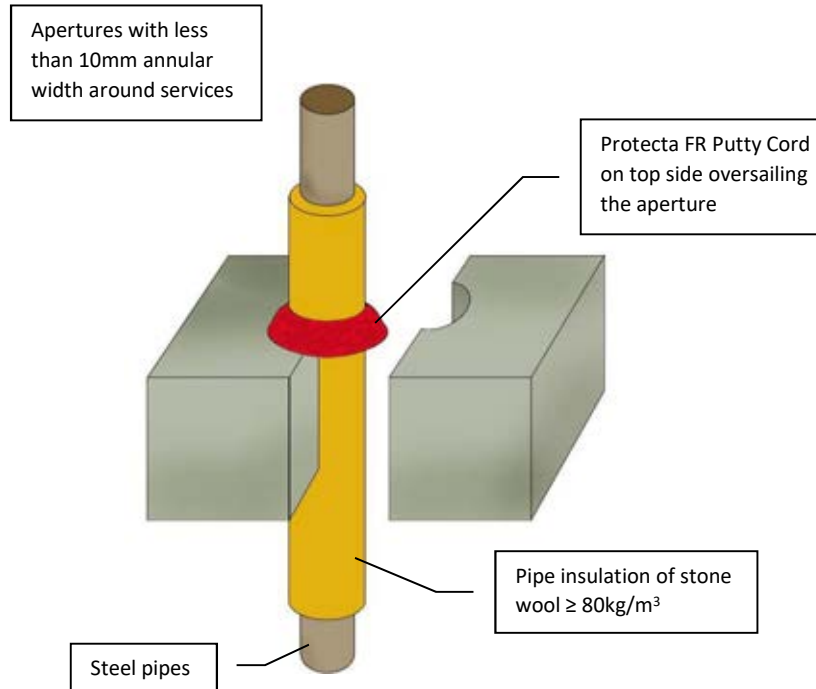
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Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Putty Cord Ø15mm
<b>Application</b>	Fire stopping of steel pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>
<b>Fire &amp; Sound classification</b>	
Steel pipes ≤ Ø 22mm EI 120 C/U & E 120 C/U	
	
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<b>A4</b>	29/5/18
Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Putty Cord ensure that the surface of all service penetrations and surrounding construction is wiped clean, dry, free from all loose contaminants, dust, oils and grease.
2. Place the Putty Cord around the services so that it seals the services to the floor all the way round.
3. Press the Putty Cord into the floor and services with your thumbs to form a fillet or V shape joint, ensuring good contact is made all the way round the services and the floor.




ETA 16/0322

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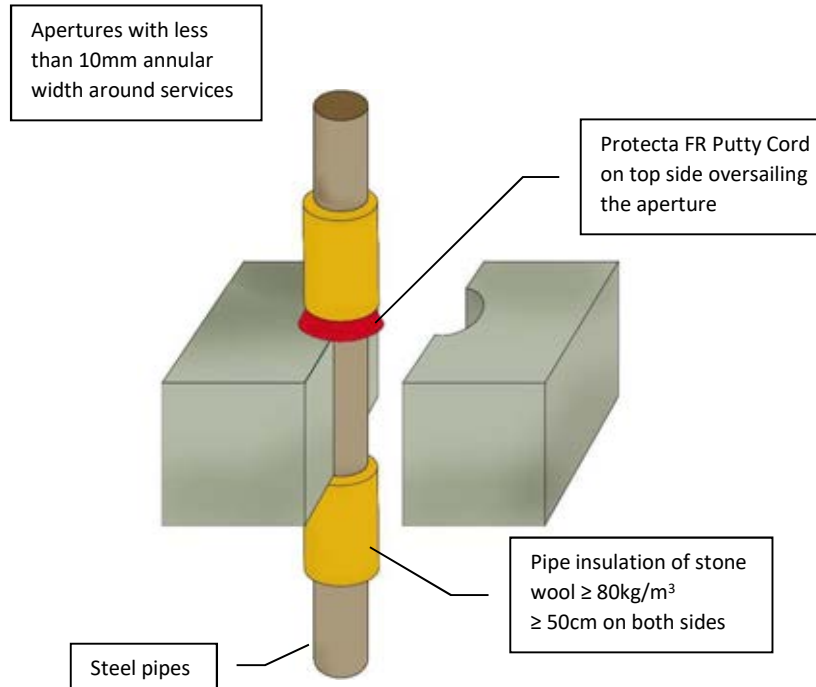
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Putty Cord Ø15mm
<b>Application</b>	Fire stopping of steel pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>
<b>Fire &amp; Sound classification</b>	
Steel pipes ≤ Ø40mm with 20mm thick continuous pipe insulation EI 240 C/U & E 240 C/U	
Steel pipes ≤ Ø324mm with 30-80mm thick continuous pipe insulation EI 240 C/U & E 240 C/U	
 <b>Protecta</b> <sup>®</sup> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
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Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Putty Cord ensure that the surface of all service penetrations and surrounding construction is wiped clean, dry, free from all loose contaminants, dust, oils and grease.
2. Place the Putty Cord around the services so that it seals the services to the floor all the way round.
3. Press the Putty Cord into the floor and services with your thumbs to form a fillet or V shape joint, ensuring good contact is made all the way round the services and the floor.




ETA 16/0322

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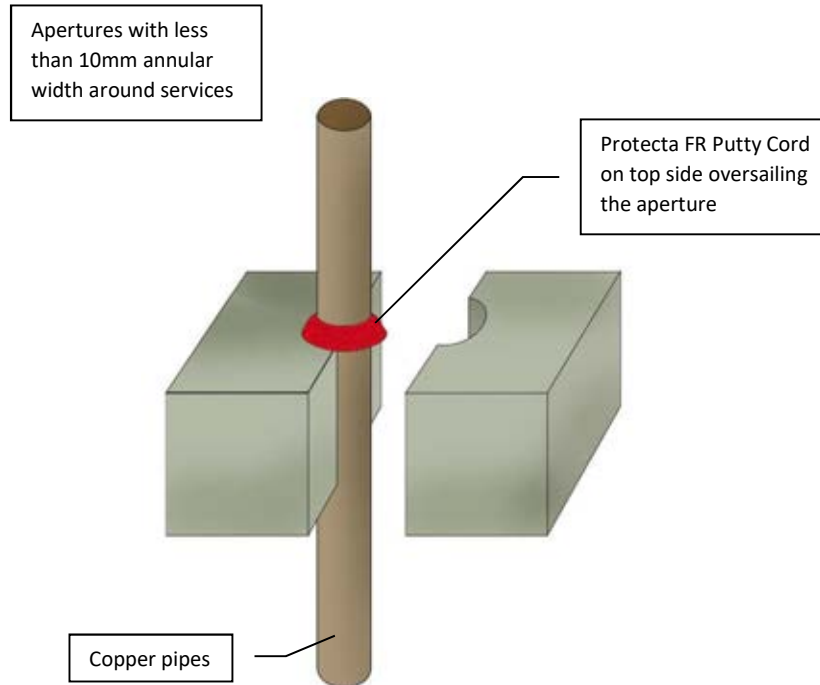
Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Putty Cord Ø15mm
<b>Application</b>	Fire stopping of steel pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>
<b>Fire &amp; Sound classification</b>	
Steel pipes ≤ Ø40mm with ≥ 20mm thick pipe insulation EI 240 C/U & E 240 C/U	
Steel pipes ≤ Ø324mm with ≥ 30mm thick pipe insulation EI 60 C/U & E 240 C/U	
 <b>Protecta</b> <sup>®</sup> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
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<b>NTS</b>	K.B



**Installation Instructions**

1. Before installing Protecta® FR Putty Cord ensure that the surface of all service penetrations and surrounding construction is wiped clean, dry, free from all loose contaminants, dust, oils and grease.
2. Place the Putty Cord around the services so that it seals the services to the floor all the way round.
3. Press the Putty Cord into the floor and services with your thumbs to form a fillet or V shape joint, ensuring good contact is made all the way round the services and the floor.



ETA 16/0322

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Signed and approved:

Client:

Job Title:

<b>Products</b>	Protecta FR Putty Cord Ø15mm
<b>Application</b>	Fire stopping of copper pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>

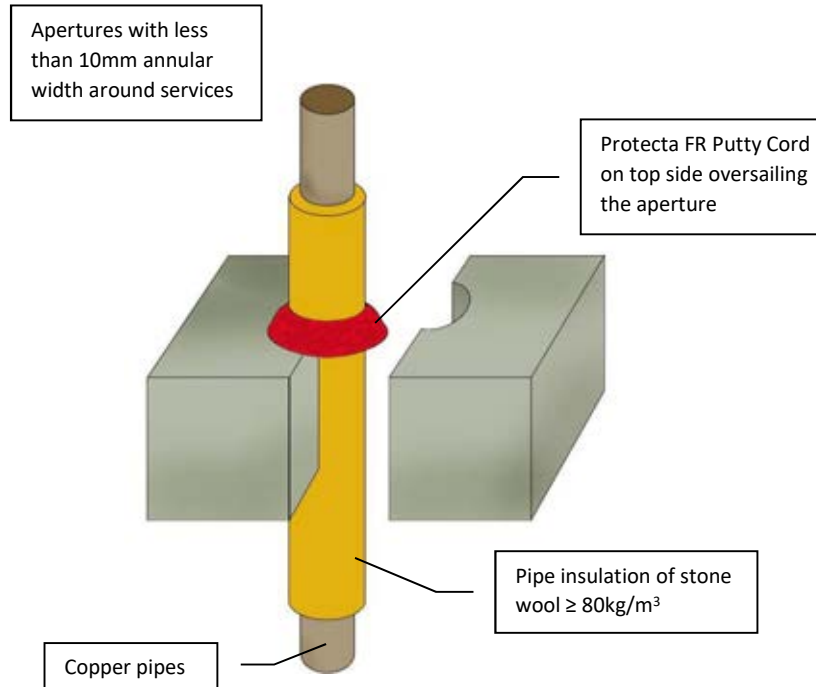
<b>Fire &amp; Sound classification</b>	
Copper pipes ≤ Ø 6mm	EI 120 C/C & E 120 C/C
Copper pipes ≤ Ø 10mm	EI 90 C/C & E 120 C/C

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Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
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**Installation Instructions**

1. Before installing Protecta® FR Putty Cord ensure that the surface of all service penetrations and surrounding construction is wiped clean, dry, free from all loose contaminants, dust, oils and grease.
2. Place the Putty Cord around the services so that it seals the services to the floor all the way round.
3. Press the Putty Cord into the floor and services with your thumbs to form a fillet or V shape joint, ensuring good contact is made all the way round the services and the floor.




ETA 16/0322

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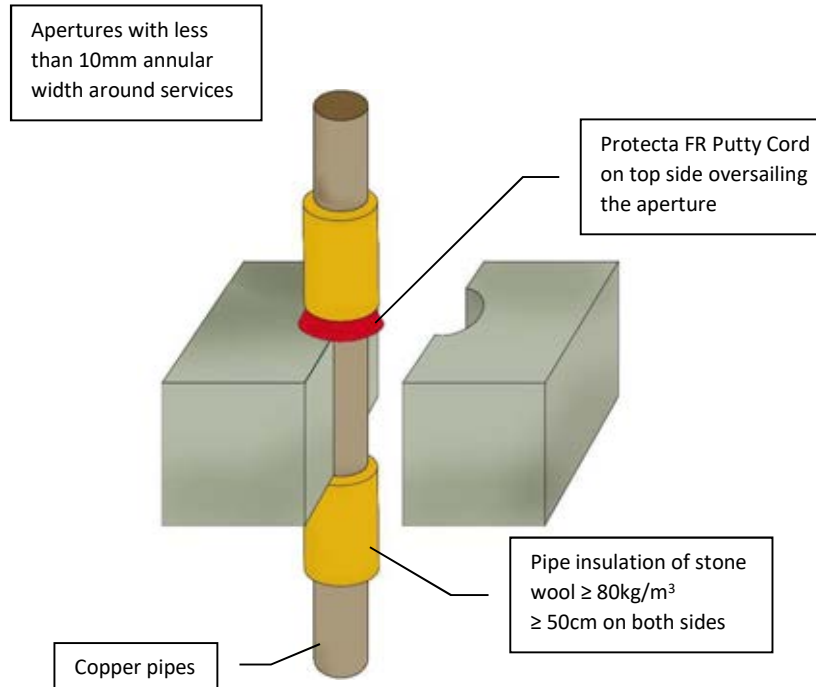
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Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Putty Cord Ø15mm
<b>Application</b>	Fire stopping of copper pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>
<b>Fire &amp; Sound classification</b>	
Copper pipes ≤ Ø12mm with 20mm thick continuous pipe insulation EI 240 C/C & E 240 C/C	
Copper pipes ≤ Ø54mm with 30-80mm thick continuous pipe insulation EI 240 C/C & E 240 C/C	
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
<b>A4</b>	11/11/18
Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Putty Cord ensure that the surface of all service penetrations and surrounding construction is wiped clean, dry, free from all loose contaminants, dust, oils and grease.
2. Place the Putty Cord around the services so that it seals the services to the floor all the way round.
3. Press the Putty Cord into the floor and services with your thumbs to form a fillet or V shape joint, ensuring good contact is made all the way round the services and the floor.




ETA 16/0322

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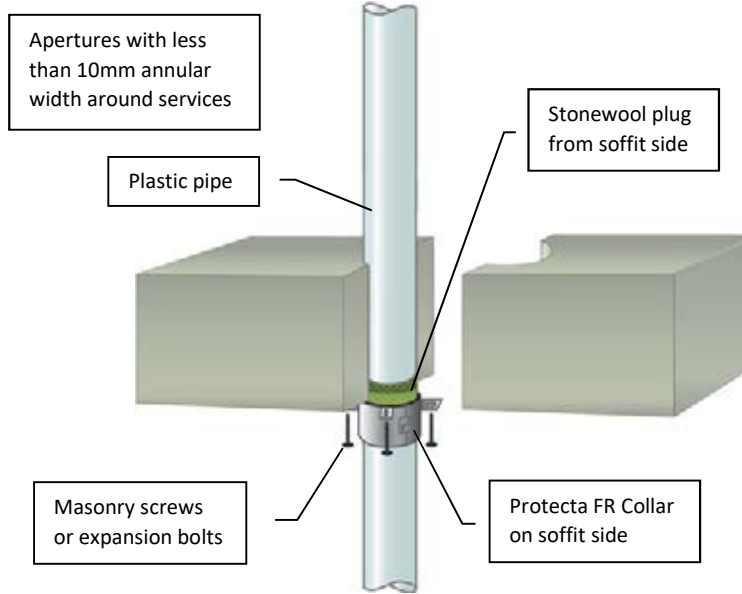
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Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Putty Cord Ø15mm
<b>Application</b>	Fire stopping of copper pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>
<b>Fire &amp; Sound classification</b>	
Copper pipes ≤ Ø12mm with ≥ 20mm thick pipe insulation EI 240 C/C & E 240 C/C	
Copper pipes ≤ Ø54mm with ≥ 20mm thick pipe insulation EI 60 C/C & E 240 C/C	
	
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Scale: <b>NTS</b>	Drawn by: K.B

**Installation Instructions**

1. Before fitting the collar ensure that any gaps between the pipe and the separating element are sealed with 20mm deep stonewool to plug the opening.
2. Place a suitable collar around the pipe and ensure that the collar shell and fixing lugs are positioned tightly to the surface of the floor, so that the fixings can be inserted fully.
3. Where the surface is uneven, apply a sealing bead of Protecta® FR Acrylic between the floor and the collar shell.
4. Attach the collar with with ≥ Ø4 x 40mm long masonry screws or expansion bolts.



Client:

Job Title:

<b>Products</b>	Protecta FR Collar Stonewool
<b>Application</b>	Fire stopping of plastic pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>

**Fire & Sound classification**

Fire classifications in tables on the left. For full specifications, please refer to the Installation Instructions.

Sound reduction (seal only)

58dB

Services	Min. Collar Height	Classification
≤ Ø50mm PVC-U & PVC-C	30mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 90)
≤ Ø90mm PVC-U & PVC-C	50mm	EI 120 C/C, EI 120 U/C, EI 60 C/U, EI 60 U/U
≤ Ø110mm PVC-U & PVC-C	30mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U
≤ Ø110mm PVC-U & PVC-C	50mm	EI 120 C/C, EI 90 U/C (E 120), EI 60 C/U
≤ Ø160mm PVC-U & PVC-C	60mm	EI 120 C/C, EI 120 U/C, EI 60 C/U, EI 60 U/U
≤ Ø200mm PVC-U & PVC-C	60mm	EI 60 C/C (E 120)
≤ Ø315mm PVC-U & PVC-C	75mm	EI 60 C/C
≤ Ø400mm PVC-U & PVC-C	100mm	EI 60 C/C
≤ Ø55mm PE, ABS & SAN+PVC	30mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U
≤ Ø50mm PE, ABS & SAN+PVC	50mm	EI 240 C/C, EI 240 U/C, EI 60 C/U, EI 60 U/U
≤ Ø110mm PE, ABS & SAN+PVC	30mm	EI 60 C/C, EI 60 U/C
≤ Ø110mm PE, ABS & SAN+PVC	50mm	EI 120 C/C, EI 120 U/C, EI 60 C/U, EI 60 U/U
≤ Ø160mm PE, ABS & SAN+PVC	60mm	EI 120 C/C, EI 120 U/C, EI 60 C/U, EI 60 U/U
≤ Ø200mm PE, ABS & SAN+PVC	60mm	EI 120 C/C (E 240)
≤ Ø250mm PE, ABS & SAN+PVC	75mm	EI 240 C/C
Ø315x18.7mm PE, ABS & SAN+PVC	75mm	EI 240 C/C
Ø400x36.3mm PE, ABS & SAN+PVC	100mm	EI 90 C/C

Services	Min. Collar Height	Classification
≤ Ø50mm PP	30mm	EI 120 C/C, EI 120 U/C, EI 120 C/U, EI 120 U/U
≤ Ø110mm PP	50mm	EI 120 C/C, EI 120 U/C, EI 60 C/U, EI 60 U/U
≤ Ø140mm PP	60mm	EI 120 C/C, EI 120 U/C, EI 60 C/U, EI 60 U/U
≤ Ø160mm PP	60mm	EI 180 C/C, EI 180 U/C, EI 60 C/U, EI 60 U/U
≤ Ø200mm PP	60mm	EI 120 C/C
≤ Ø250mm PP	75mm	EI 60 C/C
Ø315x28.6mm PP	75mm	EI 60 C/C
≤ Ø400mm PP	100mm	EI 30 C/C



Polyseam Ltd, 15 St Andrews Road,  
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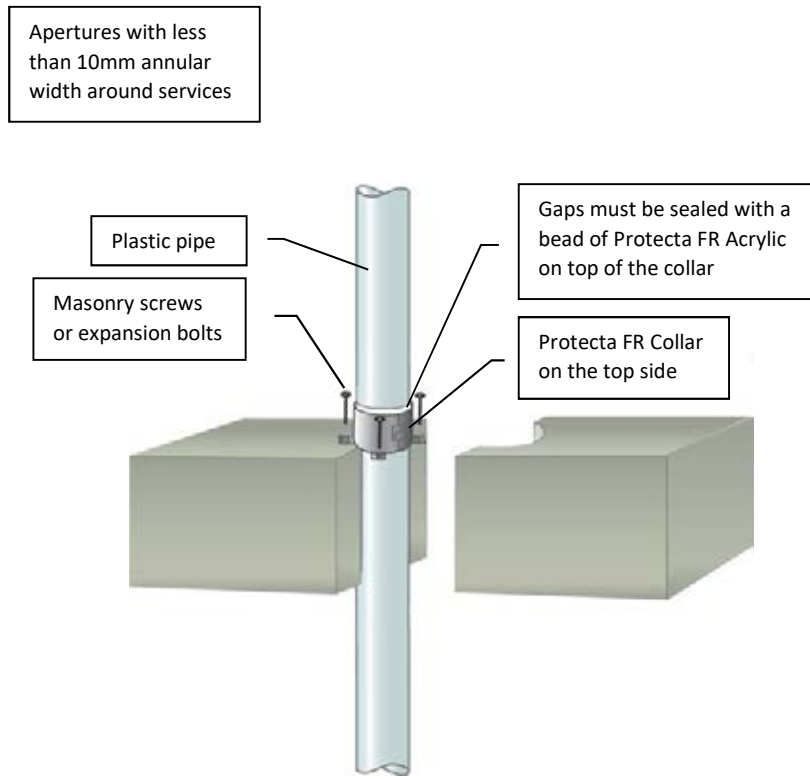
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Sheet size:	Drawn date & no:
<b>A4</b>	<b>27/7/19</b>
Scale:	Drawn by:
<b>NTS</b>	<b>K.B</b>

**Installation Instructions**

1. Place a suitable collar around the pipe and ensure that the collar shell and fixing lugs are positioned tightly to the surface of the floor, so that the fixings can be inserted fully.
2. Where the surface is uneven, apply a sealing bead of Protecta® FR Acrylic between the floor and the collar shell.
3. Attach the collar with  $\geq \text{Ø}4 \times 40\text{mm}$  long masonry screws or expansion bolts.
4. After fitting the collar ensure that the gaps between the pipe and the collar are sealed with a bead of Protecta® FR Acrylic to cover the opening.



Services	Minimum Collar Height	Classification
≤ Ø50mm PVC-U & PVC-C	50mm	EI 240 C/C, EI 240 U/C
≤ Ø110mm PVC-U & PVC-C	50mm	EI 120 C/C, EI 120 U/C
≤ Ø160mm PVC-U & PVC-C	60mm	EI 180 C/C, EI 180 U/C (E 240)
≤ Ø50mm PE, ABS & SAN+PVC	50mm	EI 240 C/C, EI 240 U/C
≤ Ø110mm PE, ABS & SAN+PVC	50mm	EI 60 C/C, EI 60 U/C (E 240)
≤ Ø160mm PE, ABS & SAN+PVC	60mm	EI 60 C/C, EI 60 U/C
≤ Ø50mm PP	50mm	EI 180 C/C, EI 180 U/C (E 240)
≤ Ø110mm PP	50mm	EI 90 C/C, EI 90 U/C (E 180)
≤ Ø160mm PP	60mm	EI 60 C/C, EI 60 U/C (E 240)

Client:

Job Title:

**Products** Protecta FR Collar  
Protecta FR Acrylic

**Application** Fire stopping of plastic pipes in rigid floors

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>

**Fire & Sound classification**

Fire classifications in tables on the left. For full specifications, please refer to the Installation Instructions.

Sound reduction (seal only) 58dB

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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

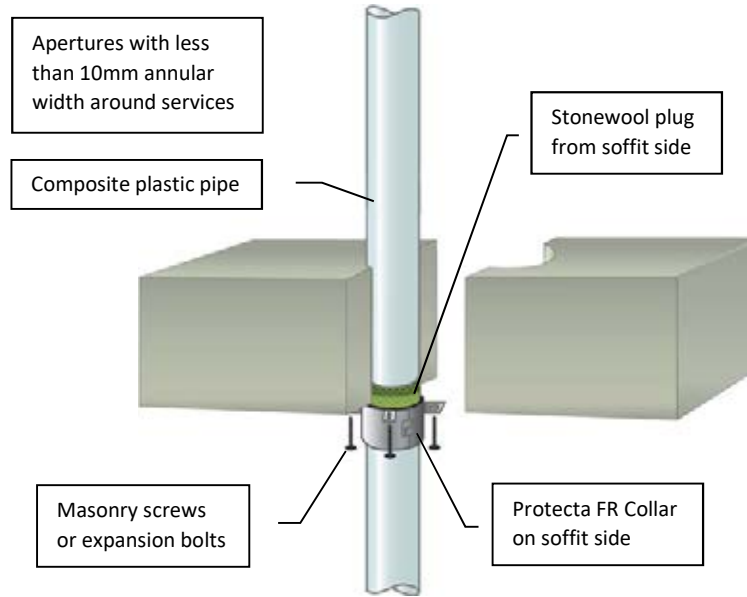
Signed and approved:

Sheet size: **A4**      Drawn date & no: **27/7/19**

Scale: **NTS**      Drawn by: **K.B**

**Installation Instructions**

1. Before fitting the collar ensure that any gaps between the pipe and the separating element are sealed with 20mm deep stonewool to plug the opening.
2. Place a suitable collar around the pipe and ensure that the collar shell and fixing lugs are positioned tightly to the surface of the floor, so that the fixings can be inserted fully.
3. Where the surface is uneven, apply a sealing bead of Protecta® FR Acrylic between the floor and the collar shell.
4. Attach the collar with  $\geq \text{Ø}4 \times 40\text{mm}$  long masonry screws or expansion bolts.



Services	Minimum Collar Height	Classification
≤ Ø32mm Aquatherm Green SDR9	30mm	EI 240 C/C
≤ Ø50mm Aquatherm Green SDR9	50mm	EI 240 C/C
≤ Ø110mm Aquatherm Green SDR9	50mm	EI 120 C/C
≤ Ø50mm BluePower	50mm	EI 180 C/C, EI 180 U/C, EI 180 C/U, EI 180 U/U
≤ Ø110mm BluePower	50mm	EI 180 C/C, EI 180 U/C, EI 180 C/U
Ø125mm BluePower	60mm	EI 180 C/C, EI 180 U/C, EI 180 C/U
Ø160mm BluePower	60mm	EI 240 C/C, EI 240 U/C, EI 240 C/U
≤ Ø50mm Geberit Silent-PP	50mm	EI 240 C/C, EI 240 U/C, EI 240 C/U, EI 240 U/U
≤ Ø110mm Geberit Silent-PP	50mm	EI 180 C/C, EI 180 U/C, EI 180 C/U
≤ Ø50mm Polo-Kal NG pipes	50mm	EI 240 C/C, EI 240 U/C, EI 240 C/U, EI 240 U/U
≤ Ø110mm Polo-Kal NG pipes	50mm	EI 240 C/C, EI 240 U/C, EI 240 C/U
Ø125mm Polo-Kal NG pipes	60mm	EI 240 C/C, EI 240 U/C
Ø160mm Polo-Kal NG pipes	60mm	EI 240 C/C, EI 240 U/C (E 240 C/U)
≤ Ø50mm Rehau Raupiano Plus	50mm	EI 240 C/C, EI 240 U/C, EI 240 C/U, EI 240 U/U
≤ Ø110mm Rehau Raupiano Plus	50mm	EI 120 C/C, EI 120 U/C, EI 120 C/U
Ø125mm Rehau Raupiano Plus	60mm	EI 180 C/C, EI 180 U/C, EI 180 C/U
Ø160mm Rehau Raupiano Plus	60mm	EI 240 C/C, EI 240 U/C (E 240 C/U)
≤ Ø50mm Wavin SiTech	50mm	EI 240 C/C, EI 240 U/C, EI 240 C/U, EI 240 U/U
≤ Ø110mm Wavin SiTech	50mm	EI 180 C/C, EI 180 U/C, EI 180 C/U



ETA 18/0854

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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:

Job Title:

**Products** Protecta FR Collar  
Stonewool


**Application** Fire stopping of composite plastic pipes in rigid floors

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>

**Fire & Sound classification**

Fire classifications in tables on the left. For full specifications, please refer to the Installation Instructions.

Sound reduction (seal only) 58dB

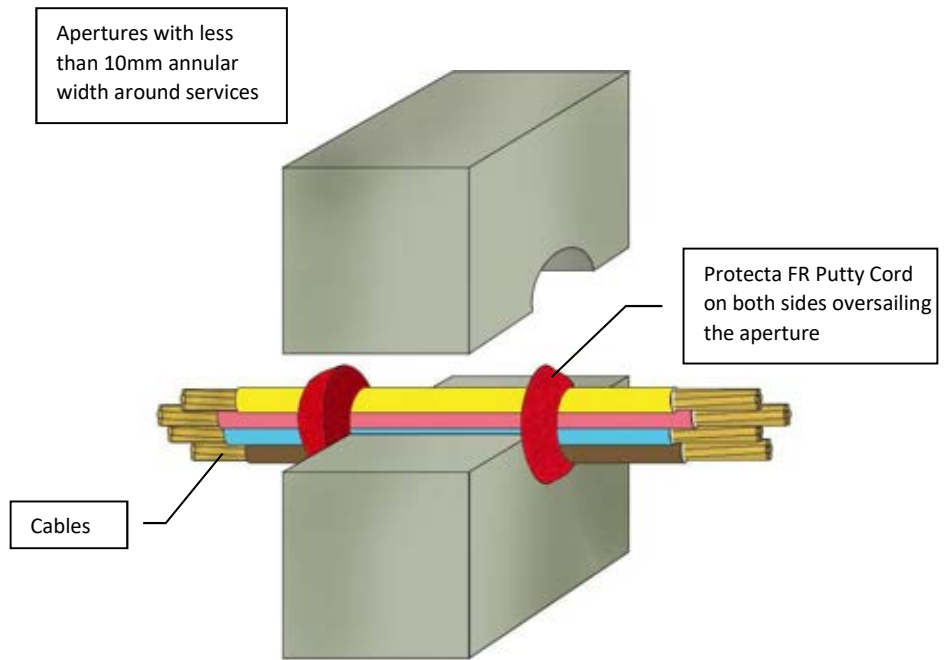


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Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

Sheet size: <b>A4</b>	Drawn date & no: 27/7/19
Scale: <b>NTS</b>	Drawn by: K.B

Installation Instructions

1. Before installing Protecta® FR Putty Cord ensure that the surface of all service penetrations and surrounding construction is wiped clean, dry, free from all loose contaminants, dust, oils and grease.
2. Place the Putty Cord around the services so that it seals the services to the wall all the way round.
3. Press the Putty Cord into the wall and services with your thumbs to form a fillet or V shape joint, ensuring good contact is made all the way round the services and the wall.




ETA 16/0322

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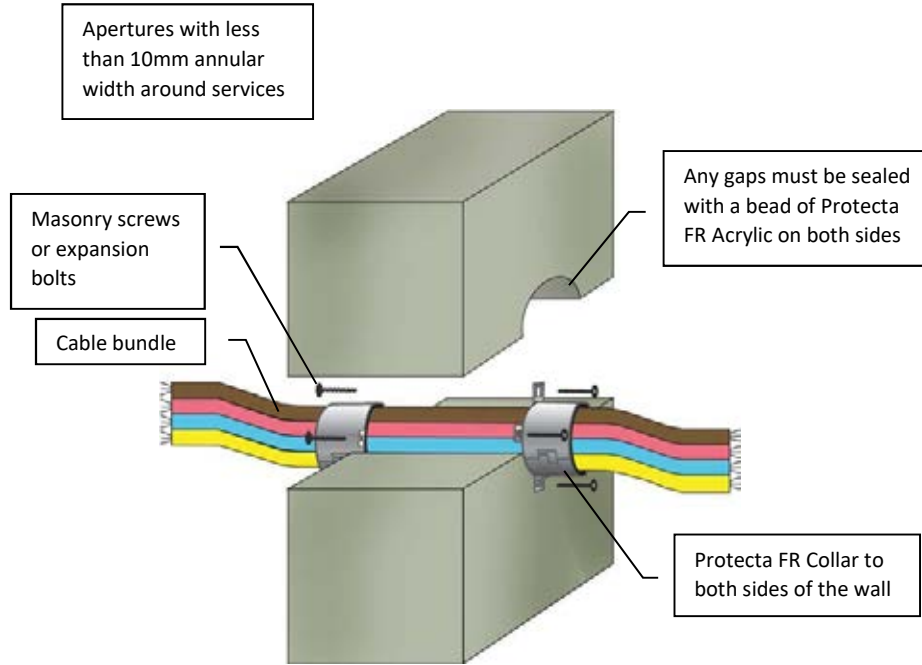
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Putty Cord Ø15mm
<b>Application</b>	Fire stopping of cables in rigid walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$
<b>Fire &amp; Sound classification</b>	
Cables $\leq \varnothing 21\text{mm}$ , single or in a bundle $\leq \varnothing 50\text{mm}$ EI 120 & E 120	
Cables $\leq \varnothing 80\text{mm}$ , single or in a bundle $\leq \varnothing 50\text{mm}$ EI 60 & E 60	
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size: <b>A4</b>	Drawn date & no: 29/5/18
Scale: <b>NTS</b>	Drawn by: K.B

Installation Instructions

1. Before fitting the collars ensure that any gaps between the cable bundle and the separating element are sealed with a bead of Protecta® FR Acrylic to cover the opening.
2. Place a suitable collar around the cable bundle and ensure that the collar shell and fixing lugs are positioned tightly to the surface of the wall, so that the fixings can be inserted fully.
3. Where the surface is uneven, apply a sealing bead of Protecta® FR Acrylic between the wall and the collar shell.
4. Attach the collar with with  $\geq \text{Ø}4 \times 40\text{mm}$  long masonry screws or expansion bolts.



Client:

Job Title:

**Products** Protecta FR Collar  
Protecta FR Acrylic

**Application** Fire stopping of cable bundles in rigid walls

**Construction** Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**

Cables  $\leq \text{Ø} 21\text{mm}$ , in a bundle  $\leq \text{Ø}110\text{mm}$ , with collars  $\leq \text{Ø}110\text{mm}$  at  $\geq 30\text{mm}$  height  
EI 60 & E 120

Cables  $\leq \text{Ø} 80\text{mm}$ , in a bundle  $\leq \text{Ø}110\text{mm}$ , with collars  $\leq \text{Ø}110\text{mm}$  at  $\geq 50\text{mm}$  height  
EI 60 & E 120

Cables  $\leq \text{Ø} 80\text{mm}$ , in a bundle  $\leq \text{Ø}160\text{mm}$ , with collars  $\leq \text{Ø}160\text{mm}$  at  $\geq 60\text{mm}$  height  
EI 60 & E 120

Sound reduction (seal only) 58dB

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Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: post.uk@polyseam.com



ETA 18/0854

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Signed and approved:

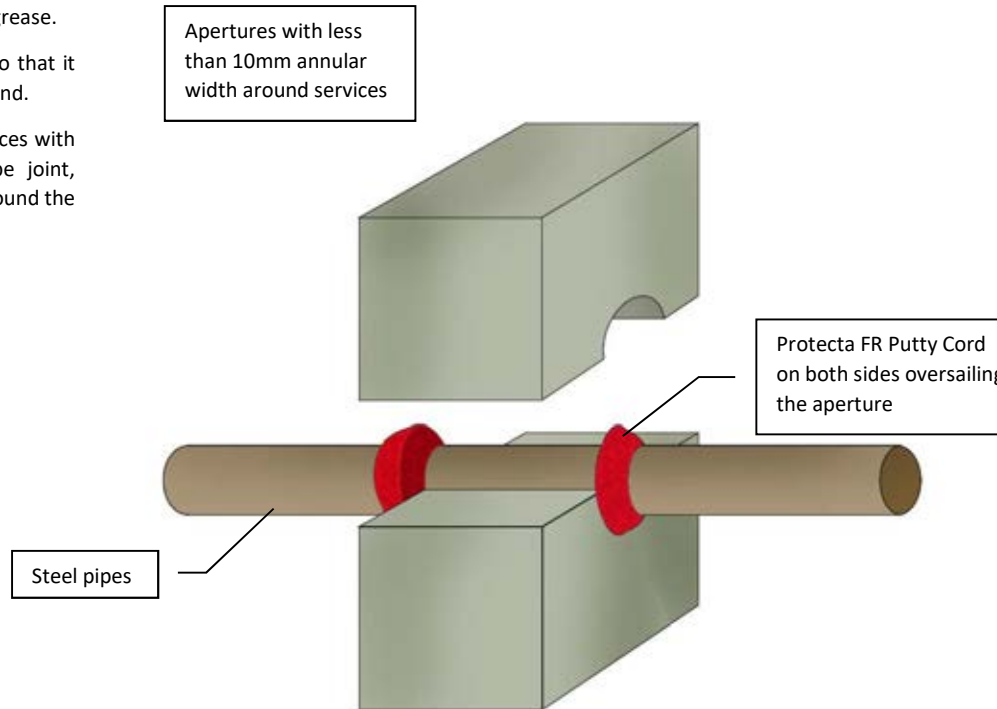
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Scale: **NTS**      Drawn by: K.B



**Installation Instructions**

1. Before installing Protecta® FR Putty Cord ensure that the surface of all service penetrations and surrounding construction is wiped clean, dry, free from all loose contaminants, dust, oils and grease.
2. Place the Putty Cord around the services so that it seals the services to the wall all the way round.
3. Press the Putty Cord into the wall and services with your thumbs to form a fillet or V shape joint, ensuring good contact is made all the way round the services and the wall.




ETA 16/0322

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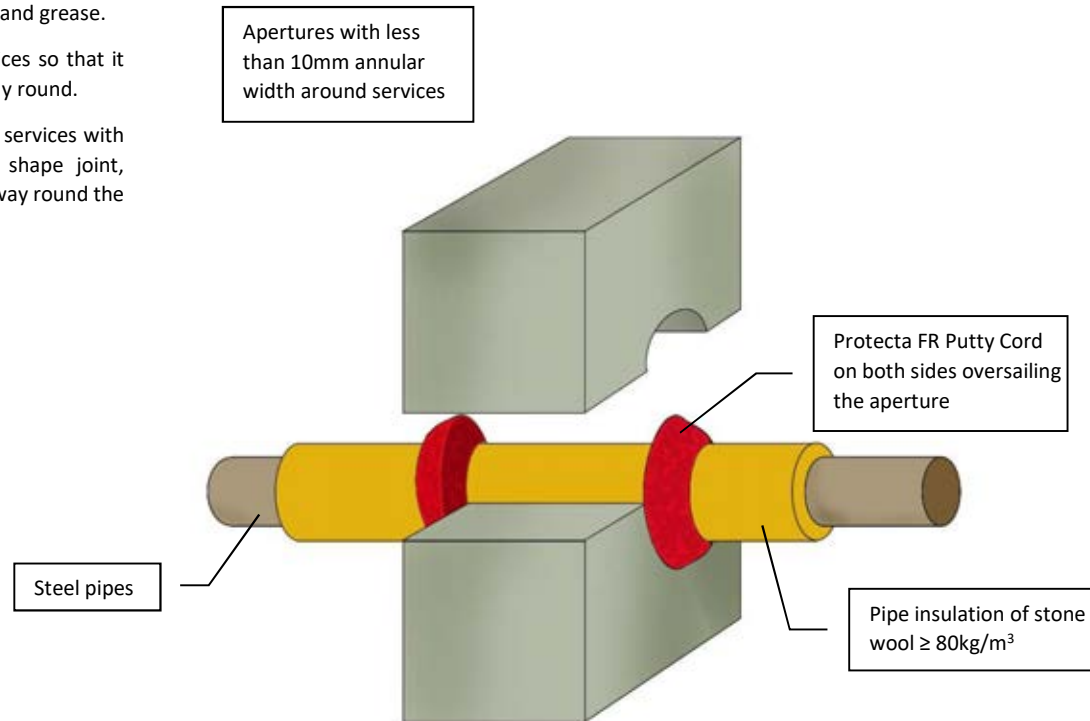
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Putty Cord Ø15mm
<b>Application</b>	Fire stopping of steel pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m <sup>3</sup>
<b>Fire &amp; Sound classification</b>	
Steel pipes ≤ Ø 22mm	EI 60 C/U & E 120 C/U
Steel pipes ≤ Ø 30mm	EI 45 C/U & E 120 C/U
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
<b>A4</b>	29/5/18
Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Putty Cord ensure that the surface of all service penetrations and surrounding construction is wiped clean, dry, free from all loose contaminants, dust, oils and grease.
2. Place the Putty Cord around the services so that it seals the services to the wall all the way round.
3. Press the Putty Cord into the wall and services with your thumbs to form a fillet or V shape joint, ensuring good contact is made all the way round the services and the wall.



Client:

Job Title:

<b>Products</b>	Protecta FR Putty Cord Ø15mm
<b>Application</b>	Fire stopping of steel pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m <sup>3</sup>

<b>Fire &amp; Sound classification</b>
Steel pipes ≤ Ø40mm with 20mm thick continuous pipe insulation EI 120 C/U & E 120 C/U
Steel pipes ≤ Ø324mm with 30-80mm thick continuous pipe insulation EI 60 C/U & E 90 C/U

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 Polyseam Ltd, 15 St Andrews Road,  
 Huddersfield, West Yorkshire, HD1 6SB  
 Tel: +44 (0) 148 4421036  
 Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)



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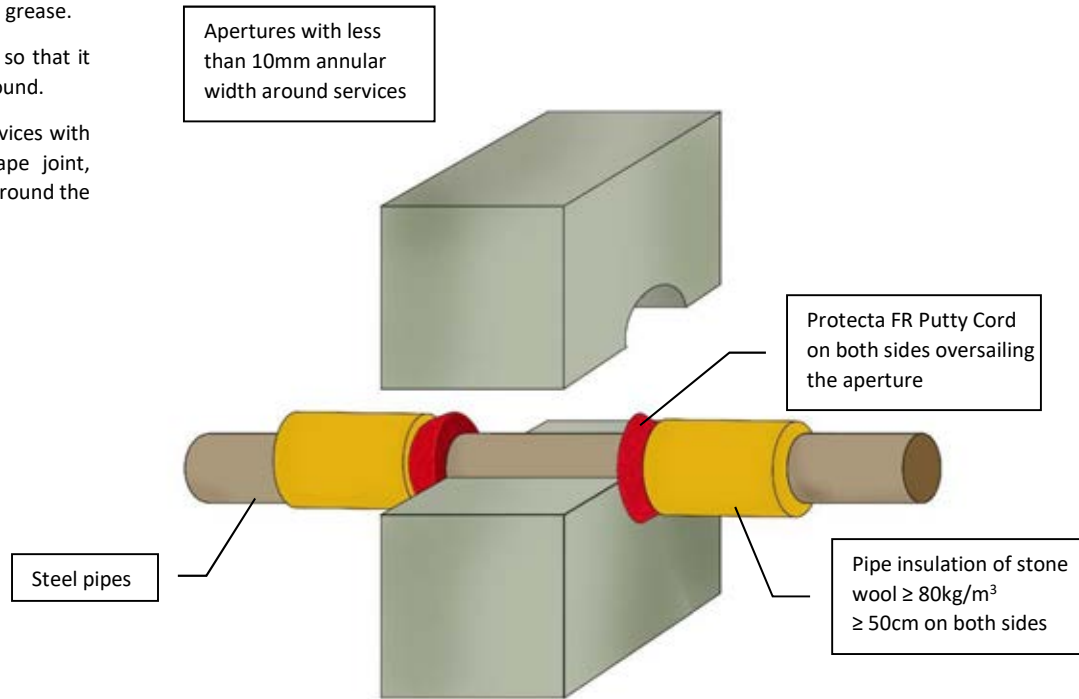
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Signed and approved:

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Scale: <b>NTS</b>	Drawn by: K.B

**Installation Instructions**

1. Before installing Protecta® FR Putty Cord ensure that the surface of all service penetrations and surrounding construction is wiped clean, dry, free from all loose contaminants, dust, oils and grease.
2. Place the Putty Cord around the services so that it seals the services to the wall all the way round.
3. Press the Putty Cord into the wall and services with your thumbs to form a fillet or V shape joint, ensuring good contact is made all the way round the services and the wall.



Client:

Job Title:

<b>Products</b>	Protecta FR Putty Cord Ø15mm
<b>Application</b>	Fire stopping of steel pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m <sup>3</sup>

<b>Fire &amp; Sound classification</b>	
Steel pipes ≤ Ø40mm with ≥ 20mm thick pipe insulation	EI 120 C/U & E 120 C/U
Steel pipes ≤ Ø324mm with ≥ 30mm thick pipe insulation	EI 120 C/U & E 120 C/U



Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
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ETA 16/0322

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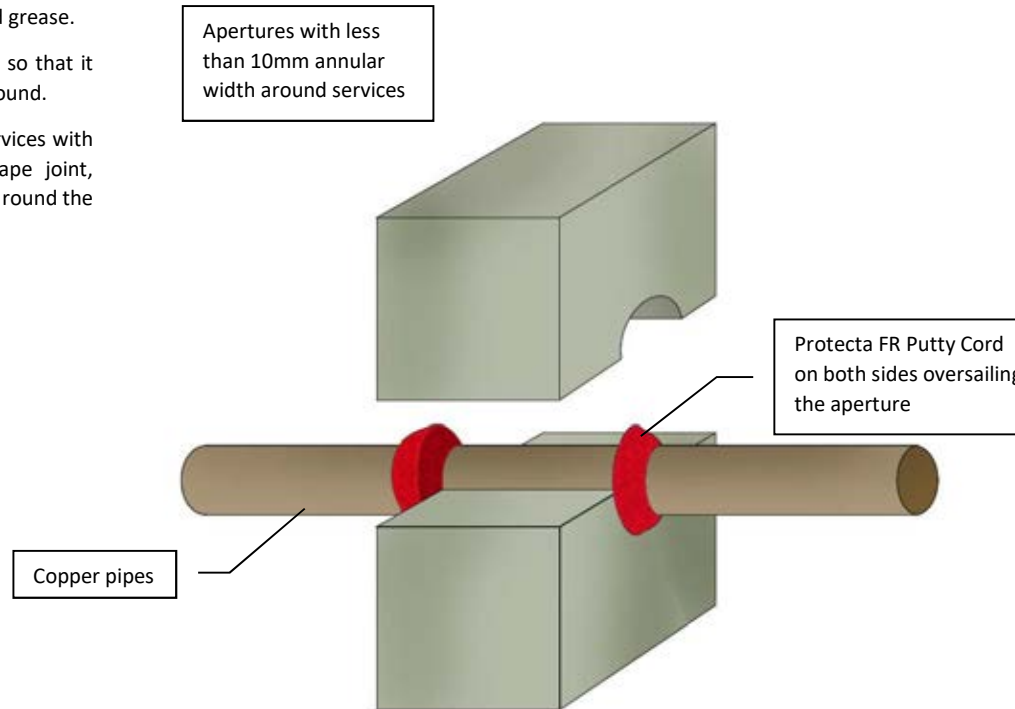
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<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Putty Cord ensure that the surface of all service penetrations and surrounding construction is wiped clean, dry, free from all loose contaminants, dust, oils and grease.
2. Place the Putty Cord around the services so that it seals the services to the wall all the way round.
3. Press the Putty Cord into the wall and services with your thumbs to form a fillet or V shape joint, ensuring good contact is made all the way round the services and the wall.




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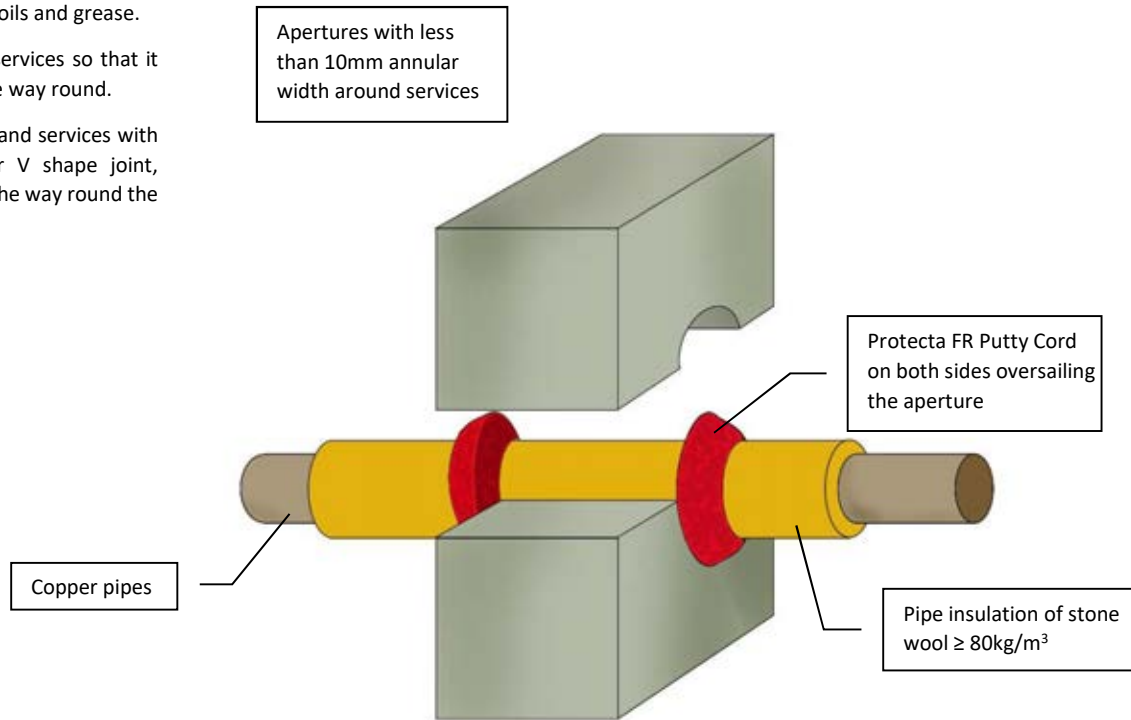
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Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Putty Cord Ø15mm
<b>Application</b>	Fire stopping of copper pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m <sup>3</sup>
<b>Fire &amp; Sound classification</b>	
Copper pipes ≤ Ø 6mm	EI 120 C/C & E 120 C/C
Copper pipes ≤ Ø 12mm	EI 60 C/C & E 120 C/C
	
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Sheet size:	Drawn date & no:
<b>A4</b>	29/5/18
Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Putty Cord ensure that the surface of all service penetrations and surrounding construction is wiped clean, dry, free from all loose contaminants, dust, oils and grease.
2. Place the Putty Cord around the services so that it seals the services to the wall all the way round.
3. Press the Putty Cord into the wall and services with your thumbs to form a fillet or V shape joint, ensuring good contact is made all the way round the services and the wall.



Client:

Job Title:

<b>Products</b>	Protecta FR Putty Cord Ø15mm
<b>Application</b>	Fire stopping of copper pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m³

<b>Fire &amp; Sound classification</b>	
Copper pipes ≤ Ø12mm with 20mm thick continuous pipe insulation	EI 60 C/C & E 90 C/C
Copper pipes ≤ Ø54mm with 30-80mm thick continuous pipe insulation	EI 60 C/C & E 90 C/C

**Protecta®**  
 Polyseam Ltd, 15 St Andrews Road,  
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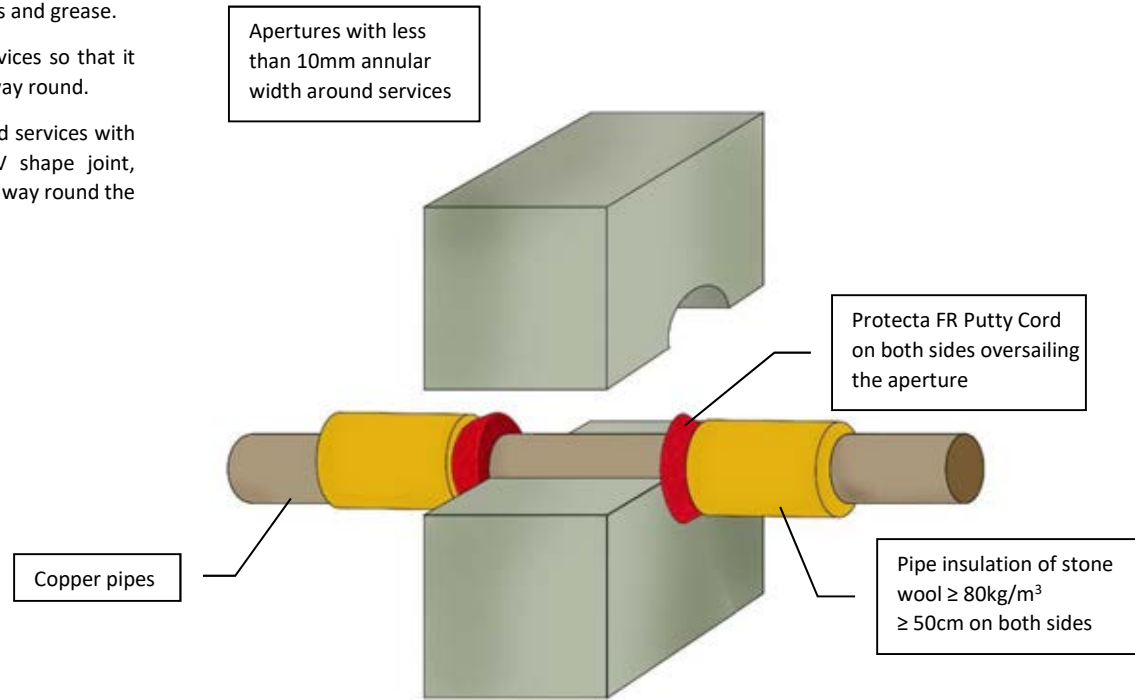
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Scale: <b>NTS</b>	Drawn by: K.B

**Installation Instructions**

1. Before installing Protecta® FR Putty Cord ensure that the surface of all service penetrations and surrounding construction is wiped clean, dry, free from all loose contaminants, dust, oils and grease.
2. Place the Putty Cord around the services so that it seals the services to the wall all the way round.
3. Press the Putty Cord into the wall and services with your thumbs to form a fillet or V shape joint, ensuring good contact is made all the way round the services and the wall.




ETA 16/0322

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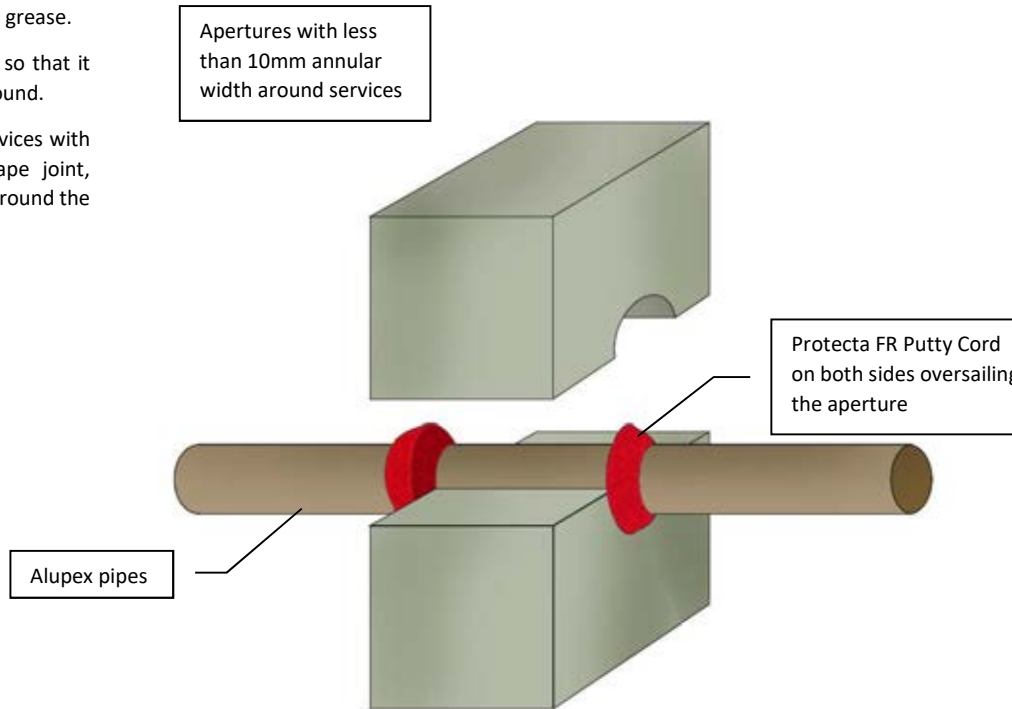
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Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Putty Cord Ø15mm
<b>Application</b>	Fire stopping of copper pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m <sup>3</sup>
<b>Fire &amp; Sound classification</b>	
Copper pipes ≤ Ø54mm with ≥ 20mm thick pipe insulation EI 60 C/C & E 90 C/C	
 <b>Protecta</b> <sup>®</sup> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
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Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Putty Cord ensure that the surface of all service penetrations and surrounding construction is wiped clean, dry, free from all loose contaminants, dust, oils and grease.
2. Place the Putty Cord around the services so that it seals the services to the wall all the way round.
3. Press the Putty Cord into the wall and services with your thumbs to form a fillet or V shape joint, ensuring good contact is made all the way round the services and the wall.



Client:

Job Title:

<b>Products</b>	Protecta FR Putty Cord Ø15mm
<b>Application</b>	Fire stopping of alupex pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m <sup>3</sup>

<b>Fire &amp; Sound classification</b>	
Alupex pipes ≤ Ø 16mm	EI 120 C/C & E 120 C/C
Alupex pipes ≤ Ø 20mm	EI 90 C/C & E 120 C/C

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 Polyseam Ltd, 15 St Andrews Road,  
 Huddersfield, West Yorkshire, HD1 6SB  
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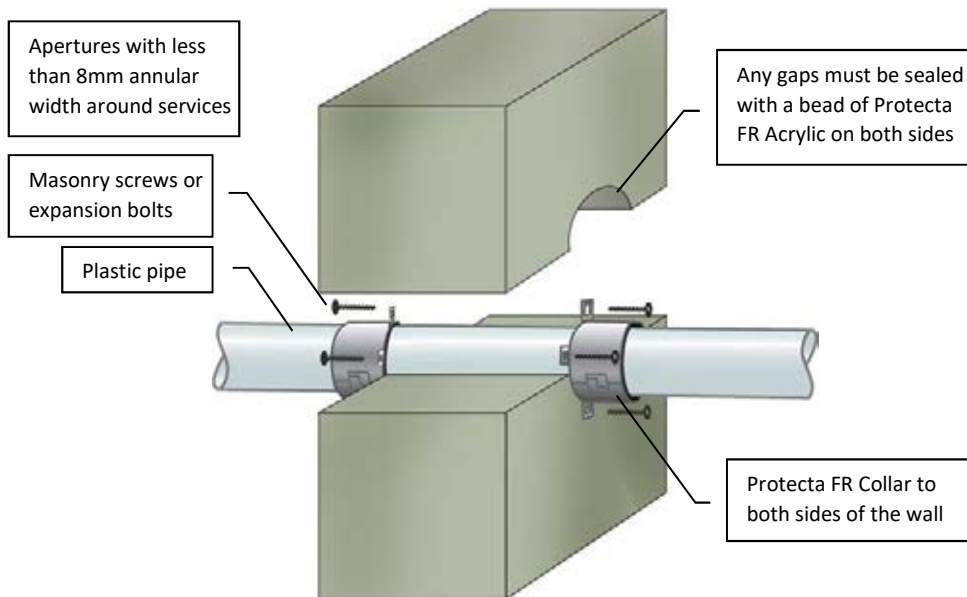
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Signed and approved:

Sheet size: <b>A4</b>	Drawn date & no: 11/11/18
Scale: <b>NTS</b>	Drawn by: K.B

### Installation Instructions

1. Before fitting the collars ensure that any gaps between the pipe and the separating element are sealed with a bead of Protecta® FR Acrylic to cover the opening.
2. Place a suitable collar around the pipe and ensure that the collar shell and fixing lugs are positioned tightly to the surface of the wall, so that the fixings can be inserted fully.
3. Where the surface is uneven, apply a sealing bead of Protecta® FR Acrylic between the wall and the collar shell.
4. Attach the collar with  $\geq \text{Ø}4 \times 40\text{mm}$  long masonry screws or expansion bolts.



Services	Minimum Collar Height	Classification
≤ Ø50mm PVC-U & PVC-C	30mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 90)
≤ Ø110mm PVC-U & PVC-C	30mm	EI 60 C/C, EI 60 U/C
≤ Ø140mm PVC-U & PVC-C	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 90)
≤ Ø160mm PVC-U & PVC-C	60mm	EI 90 C/C, EI 90 U/C, EI 60 C/U, EI 60 U/U
Ø315x9.2mm PVC-U & PVC-C	75mm	EI 60 C/C
≤ Ø50mm PE, ABS & SAN+PVC	30mm	EI 60 C/C, EI 60 U/C (E 90)
≤ Ø50mm PE, ABS & SAN+PVC	50mm	EI 90 C/C, EI 90 U/C, EI 90 C/U, EI 90 U/U (E 120)
≤ Ø110mm PE, ABS & SAN+PVC	30mm	EI 60 C/C, EI 60 U/C
≤ Ø110mm PE, ABS & SAN+PVC	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 90)
≤ Ø140mm PE, ABS & SAN+PVC	60mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 90)
Ø160mm PE, ABS & SAN+PVC	60mm	EI 90 C/C, EI 90 U/C, EI 90 C/U, EI 90 U/U
Ø200x18.2mm PE, ABS & SAN+PVC	75mm	EI 60 C/C
Ø250x22.7mm PE, ABS & SAN+PVC	75mm	EI 60 C/C
≤ Ø50mm PP	30mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 90)
≤ Ø110mm PP	30mm	EI 60 C/C, EI 60 U/C (E 90)
≤ Ø110mm PP	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 90)
≤ Ø160mm PP	60mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U




ETA 18/0854

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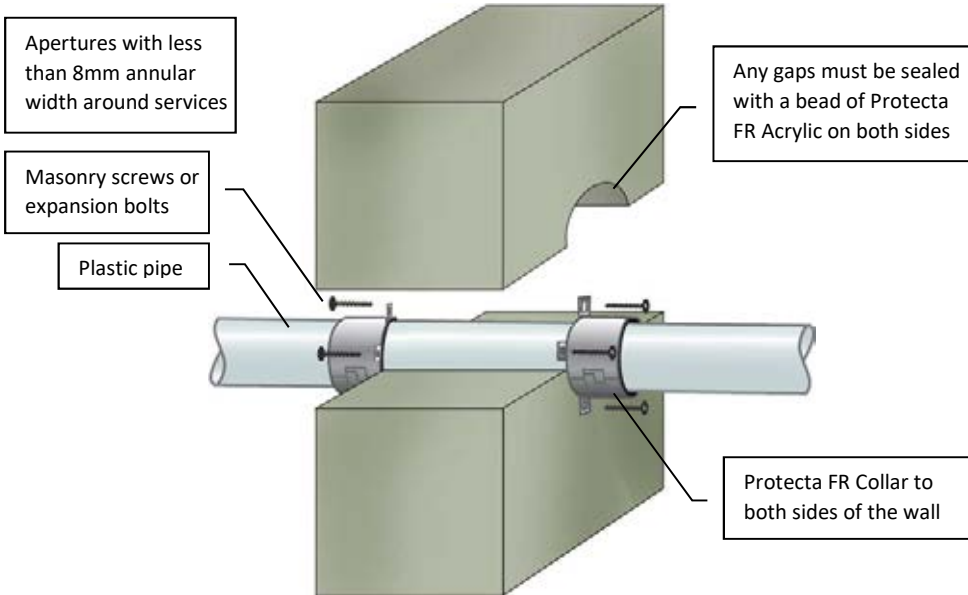
Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Collar Protecta FR Acrylic
<b>Application</b>	Fire stopping of plastic pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$
<b>Fire &amp; Sound classification</b>	
Fire classifications in table on the left. For full specifications, please refer to the Installation Instructions.	
Sound reduction (seal only)	58dB
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
<b>A4</b>	27/7/19
Scale:	Drawn by:
<b>NTS</b>	K.B



**Installation Instructions**

1. Before fitting the collars ensure that any gaps between the pipe and the separating element are sealed with a bead of Protecta® FR Acrylic to cover the opening.
2. Place a suitable collar around the pipe and ensure that the collar shell and fixing lugs are positioned tightly to the surface of the wall, so that the fixings can be inserted fully.
3. Where the surface is uneven, apply a sealing bead of Protecta® FR Acrylic between the wall and the collar shell.
4. Attach the collar with with ≥ Ø4 x 40mm long masonry screws or expansion bolts.



Services	Minimum Collar Height	Classification
≤ Ø110mm PVC-U & PVC-C	50mm	EI 120 C/C
≤ Ø160mm PVC-U & PVC-C	60mm	EI 120 C/C
≤ Ø50mm PE, ABS & SAN+PVC	50mm	EI 120 C/C
≤ Ø110mm PE, ABS & SAN+PVC	50mm	EI 90 C/C (E 120)
Ø110x3.4mm PE, ABS & SAN+PVC	50mm	EI 120 C/C
≤ Ø160mm PE, ABS & SAN+PVC	60mm	EI 90 C/C
Ø160x9.5mm PE, ABS & SAN+PVC	60mm	EI 120 C/C
≤ Ø50mm PP	50mm	EI 120 C/C
≤ Ø110mm PP	50mm	EI 90 C/C (E 120)
≤ Ø140mm PP	60mm	EI 90 C/C (E 120)
Ø160mm PP	60mm	EI 120 C/C

Client:

Job Title:

**Products** Protecta FR Collar  
Protecta FR Acrylic

**Application** Fire stopping of plastic pipes in rigid walls

**Construction** Minimum wall thickness of 120 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m<sup>3</sup>

**Fire & Sound classification**

Fire classifications in table on the left. For full specifications, please refer to the Installation Instructions.

Sound reduction (seal only) 58dB

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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

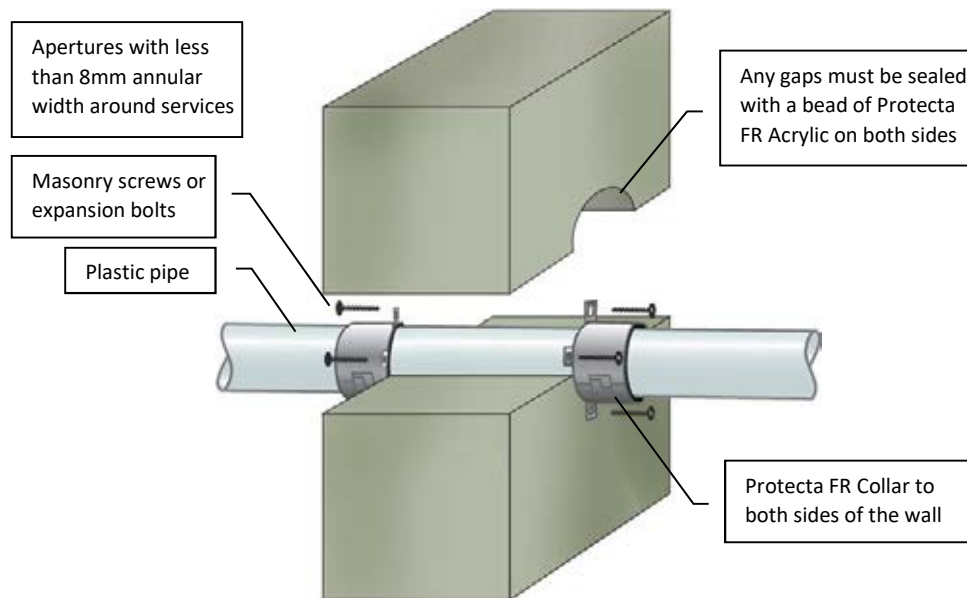
Signed and approved:

Sheet size: **A4**      Drawn date & no: **27/7/19**

Scale: **NTS**      Drawn by: **K.B**

### Installation Instructions

1. Before fitting the collars ensure that any gaps between the pipe and the separating element are sealed with a bead of Protecta® FR Acrylic to cover the opening.
2. Place a suitable collar around the pipe and ensure that the collar shell and fixing lugs are positioned tightly to the surface of the wall, so that the fixings can be inserted fully.
3. Where the surface is uneven, apply a sealing bead of Protecta® FR Acrylic between the wall and the collar shell.
4. Attach the collar with with  $\geq \text{Ø}4 \times 40\text{mm}$  long masonry screws or expansion bolts.



Services	Minimum Collar Height	Classification
$\leq \text{Ø}50\text{mm}$ PVC-U & PVC-C	50mm	EI 180 C/C, EI 180 U/C, EI 180 C/U, EI 180 U/U (E 240)
$\leq \text{Ø}110\text{mm}$ PVC-U & PVC-C	50mm	EI 180 C/C, EI 180 U/C, EI 180 C/U, EI 180 U/U
$\leq \text{Ø}160\text{mm}$ PVC-U & PVC-C	60mm	EI 240 C/C, EI 240 U/C, EI 240 C/U, EI 240 U/U
$\text{Ø}315 \times 9.2\text{mm}$ PVC-U & PVC-C	75mm	EI 120 C/C
$\leq \text{Ø}50\text{mm}$ PE, ABS & SAN+PVC	50mm	EI 240 C/C, EI 240 U/C, EI 240 C/U, EI 240 U/U
$\leq \text{Ø}110\text{mm}$ PE, ABS & SAN+PVC	50mm	EI 180 C/C, EI 180 U/C, EI 180 C/U, EI 180 U/U (E 240)
$\leq \text{Ø}160\text{mm}$ PE, ABS & SAN+PVC	60mm	EI 180 C/C, EI 180 U/C, EI 180 C/U, EI 180 U/U
$\text{Ø}200 \times 18.2\text{mm}$ PE, ABS & SAN+PVC	75mm	EI 60 C/C
$\text{Ø}250 \times 22.7\text{mm}$ PE, ABS & SAN+PVC	75mm	EI 90 C/C (E 120)
$\leq \text{Ø}50\text{mm}$ PP	30mm	EI 240 C/C, EI 240 U/C, EI 240 C/U, EI 240 U/U
$\leq \text{Ø}110\text{mm}$ PP	50mm	EI 240 C/C, EI 240 U/C, EI 90 C/U, EI 90 U/U (E 240)
$\leq \text{Ø}140\text{mm}$ PP	60mm	EI 180 C/C, EI 180 U/C, EI 60 C/U, EI 60 U/U (E 240)
$\text{Ø}160\text{mm}$ PP	60mm	EI 180 C/C, EI 180 U/C, EI 180 C/U, EI 180 U/U (E 240)



ETA 18/0854

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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:

Job Title:

**Products** Protecta FR Collar  
Protecta FR Acrylic

**Application** Fire stopping of plastic pipes in rigid walls

**Construction** Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

### Fire & Sound classification

Fire classifications in table on the left. For full specifications, please refer to the Installation Instructions.

Sound reduction (seal only)

58dB



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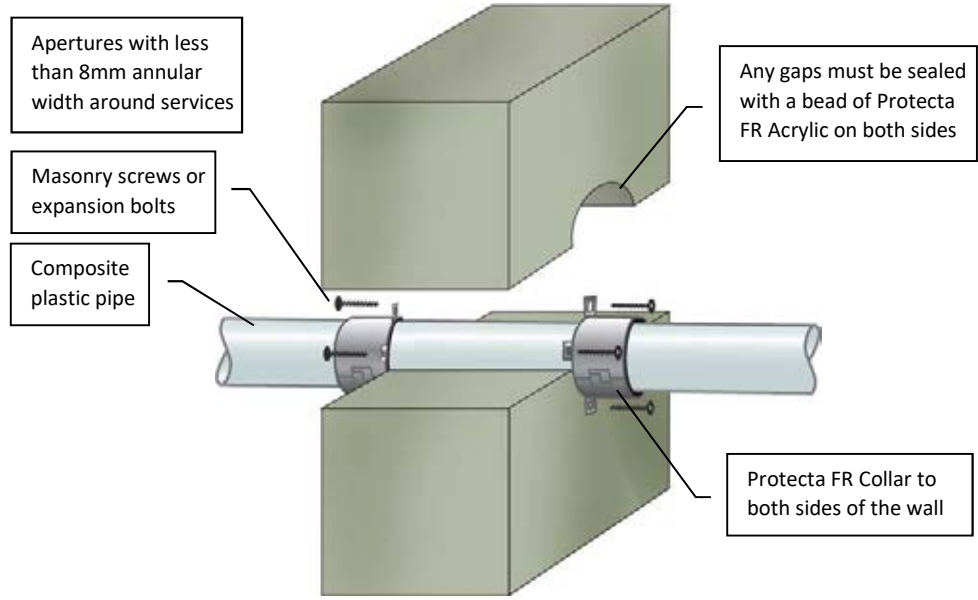
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Sheet size: **A4**  
Drawn date & no: 27/7/19

Scale: **NTS**  
Drawn by: K.B

**Installation Instructions**

1. Before fitting the collars ensure that any gaps between the pipe and the separating element are sealed with a bead of Protecta® FR Acrylic to cover the opening.
2. Place a suitable collar around the pipe and ensure that the collar shell and fixing lugs are positioned tightly to the surface of the wall, so that the fixings can be inserted fully.
3. Where the surface is uneven, apply a sealing bead of Protecta® FR Acrylic between the wall and the collar shell.
4. Attach the collar with  $\geq \text{Ø}4 \times 40\text{mm}$  long masonry screws or expansion bolts.



Services	Minimum Collar Height	Classification
≤ Ø32mm Aquatherm Green SDR9	30mm	EI 120 C/C
≤ Ø50mm Aquatherm Green SDR9	50mm	EI 120 C/C
≤ Ø110mm Aquatherm Green SDR9	50mm	EI 60 C/C (E 120)
≤ Ø50mm BluePower	50mm	EI 90 C/C, EI 90 U/C, EI 90 C/U, EI 90 U/U (E 120)
≤ Ø110mm BluePower	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U (E 120)
Ø125mm BluePower	60mm	EI 60 C/C, EI 60 U/C, EI 60 C/U
Ø160mm BluePower	60mm	EI 90 C/C, EI 90 U/C, EI 90 C/U
≤ Ø50mm Geberit Silent-PP	50mm	EI 120 C/C, EI 120 U/C, EI 120 C/U, EI 120 U/U
≤ Ø110mm Geberit Silent-PP	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 120)
≤ Ø50mm Polo-Kal NG pipes	50mm	EI 120 C/C, EI 120 U/C, EI 120 C/U, EI 120 U/U
≤ Ø110mm Polo-Kal NG pipes	50mm	EI 90 C/C, EI 90 U/C, EI 90 C/U, EI 90 U/U (E 120)
Ø125mm Polo-Kal NG pipes	60mm	EI 120 C/C, EI 120 U/C (E 120 C/U, E 120 U/U)
Ø160mm Polo-Kal NG pipes	60mm	EI 120 C/C, EI 120 U/C, EI 120 C/U, EI 120 U/U
≤ Ø50mm Rehau Raupiano Plus	50mm	EI 90 C/C, EI 90 U/C, EI 90 C/U, EI 90 U/U (E 120)
≤ Ø110mm Rehau Raupiano Plus	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 120)
≤ Ø160mm Rehau Raupiano Plus	60mm	EI 120 C/C, EI 120 U/C, EI 120 C/U, EI 120 U/U
≤ Ø50mm Wavin SiTech	50mm	EI 120 C/C, EI 120 U/C, EI 120 C/U, EI 120 U/U
≤ Ø110mm Wavin SiTech	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 120)



ETA 18/0854

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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:

Job Title:

**Products** Protecta FR Collar  
Protecta FR Acrylic

**Application** Fire stopping of composite plastic pipes in rigid walls

**Construction** Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**

Fire classifications in table on the left. For full specifications, please refer to the Installation Instructions.

Sound reduction (seal only) 58dB

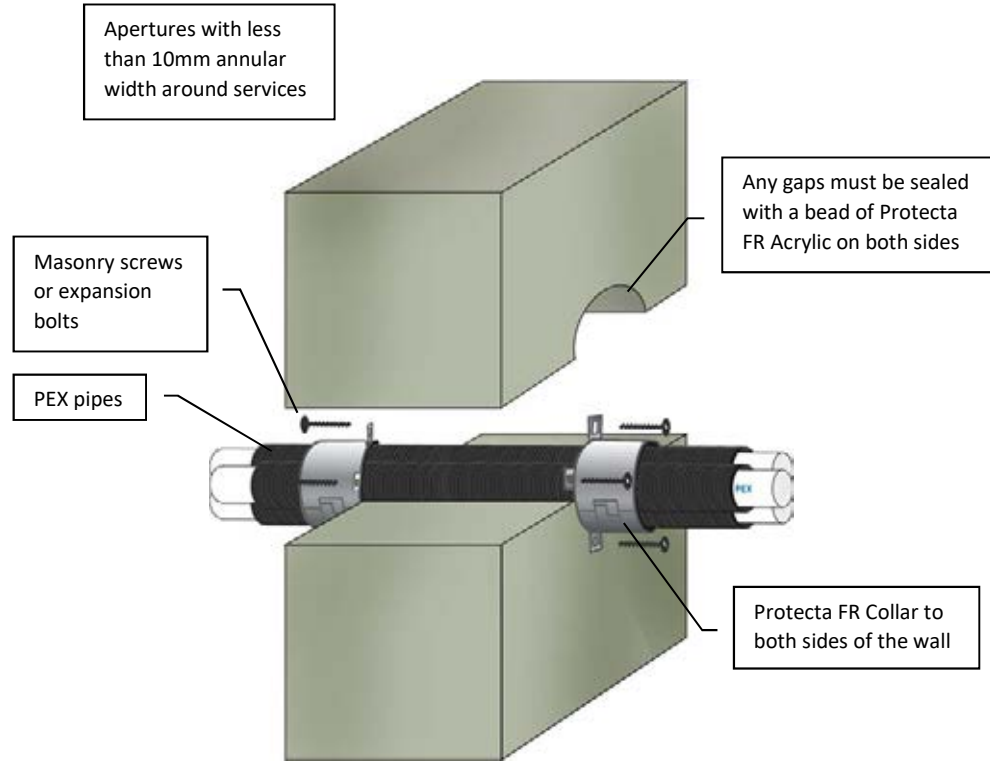


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Huddersfield, West Yorkshire, HD1 6SB  
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Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

Sheet size: <b>A4</b>	Drawn date & no: 27/7/19
Scale: <b>NTS</b>	Drawn by: K.B

Installation Instructions

1. Before fitting the collars ensure that any gaps between the pipes and the separating element are sealed with a bead of Protecta® FR Acrylic to cover the opening.
2. Place a suitable collar around the pipes and ensure that the collar shell and fixing lugs are positioned tightly to the surface of the wall, so that the fixings can be inserted fully.
3. Where the surface is uneven, apply a sealing bead of Protecta® FR Acrylic between the wall and the collar shell.
4. Attach the collar with with  $\geq \text{Ø}4 \times 40\text{mm}$  long masonry screws or expansion bolts.




ETA 18/0854

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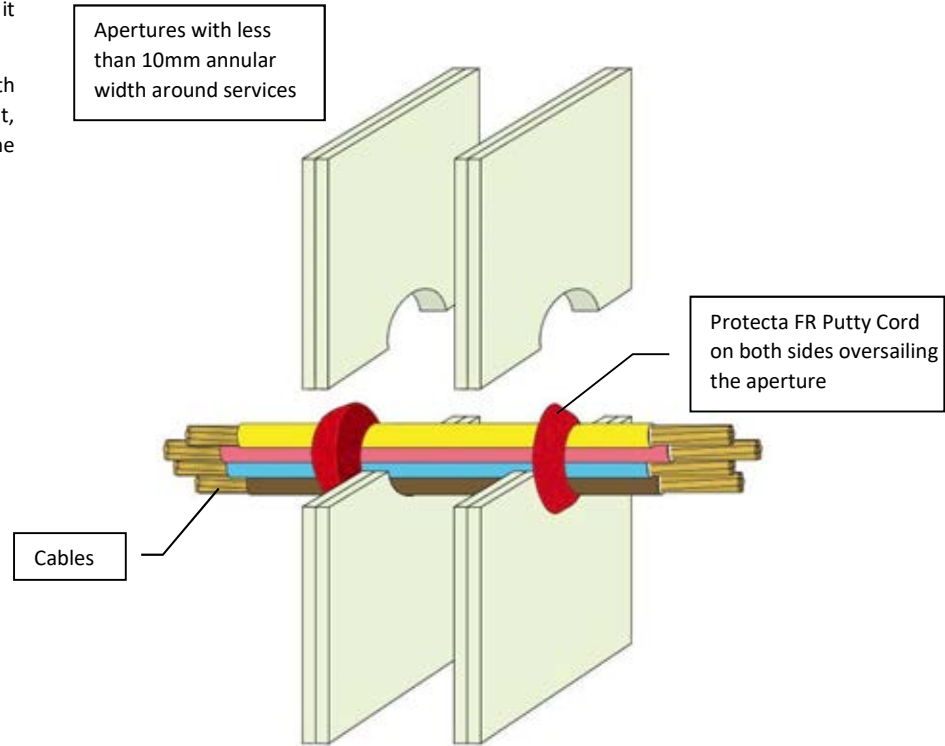
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Collar Protecta FR Acrylic
<b>Application</b>	Fire stopping of PEX pipe-in-pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$
<b>Fire &amp; Sound classification</b>	
PEX pipes $\leq \text{Ø} 25\text{mm}$ , single or in a bundle $\leq \text{Ø} 55\text{mm}$ , with collars $\leq \text{Ø} 55\text{mm}$ at $\geq 30\text{mm}$ height	
EI 90 & E 120	
Sound reduction (seal only)	
58dB	
	
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Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
<b>A4</b>	27/7/19
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Before installing Protecta® FR Putty Cord ensure that the surface of all service penetrations and surrounding construction is wiped clean, dry, free from all loose contaminants, dust, oils and grease.
2. Place the Putty Cord around the services so that it seals the services to the wall all the way round.
3. Press the Putty Cord into the wall and services with your thumbs to form a fillet or V shape joint, ensuring good contact is made all the way round the services and the wall.



ETA 16/0322

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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:

Job Title:

<b>Products</b>	Protecta FR Putty Cord Ø15mm
<b>Application</b>	Fire stopping of cables in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards

<b>Fire &amp; Sound classification</b>	
Cables ≤ Ø 21mm, single or in a bundle ≤ Ø 50mm	EI 120 & E 120
Cables ≤ Ø 80mm, single or in a bundle ≤ Ø 50mm	EI 60 & E 60



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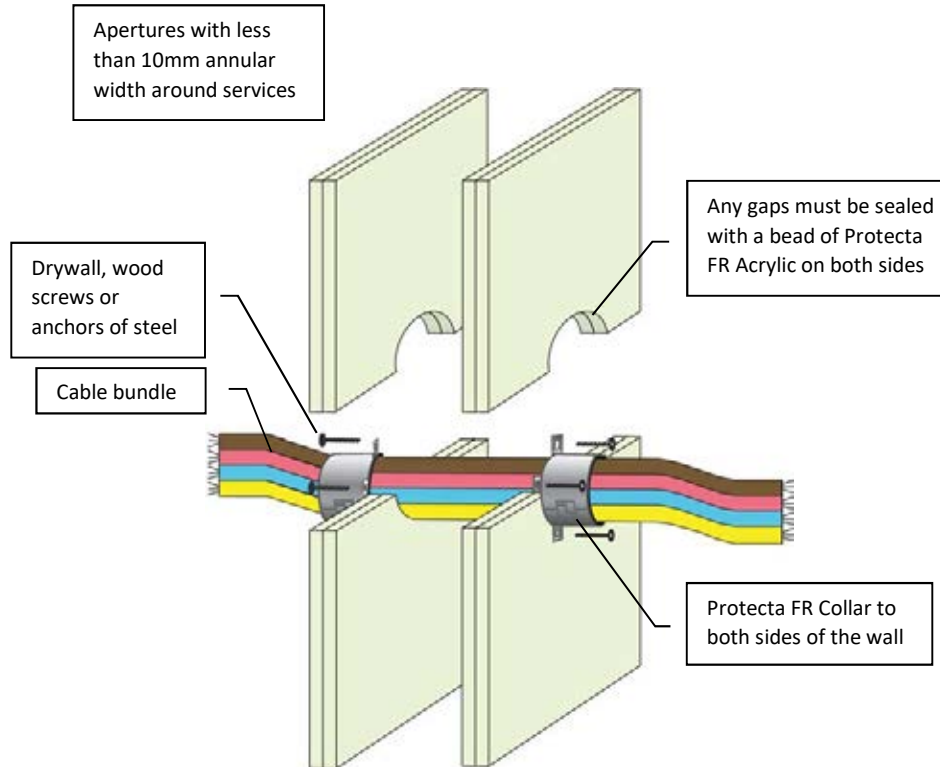
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<b>NTS</b>	K.B

Installation Instructions

1. Before fitting the collars ensure that any gaps between the cable bundle and the separating element are sealed with a bead of Protecta® FR Acrylic to cover the opening.
2. Place a suitable collar around the cable bundle and ensure that the collar shell and fixing lugs are positioned tightly to the surface of the wall, so that the fixings can be inserted fully.
3. Where the surface is uneven, apply a sealing bead of Protecta® FR Acrylic between the wall and the collar shell.
4. Attach the collar with  $\geq \text{Ø}4\text{mm}$  drywall, wood screws or anchors with a length suitable for the number of boards that form the wall.




ETA 18/0854

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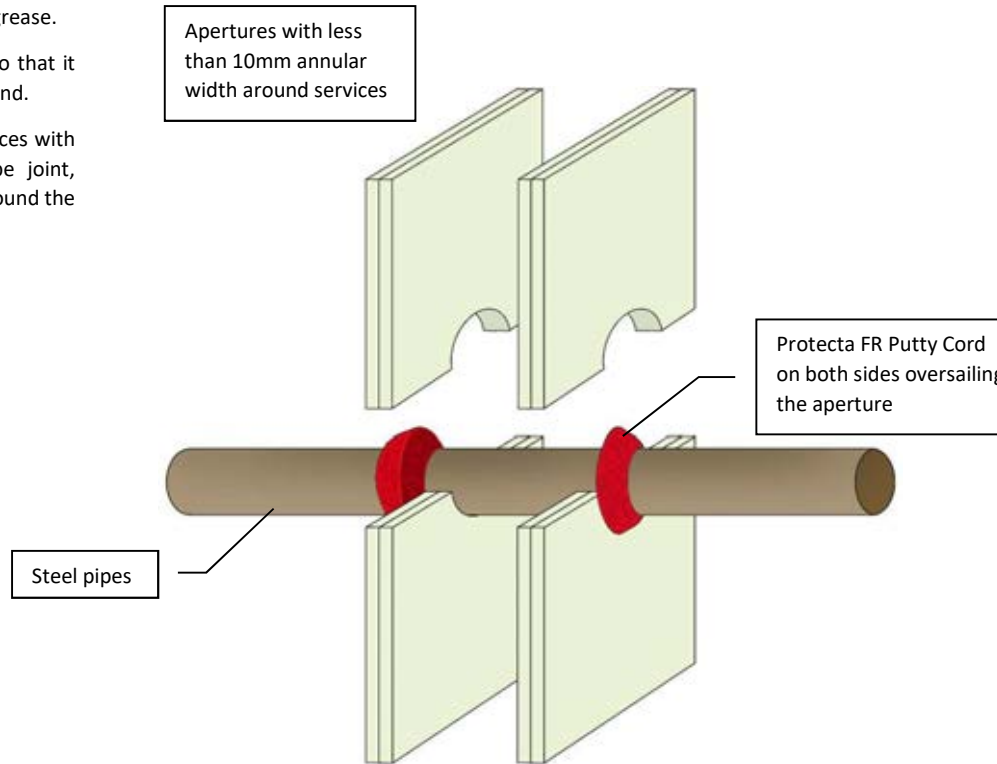
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Collar Protecta FR Acrylic
<b>Application</b>	Fire stopping of cable bundles in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards
<b>Fire &amp; Sound classification</b>	
Cables $\leq \text{Ø} 21\text{mm}$ , in a bundle $\leq \text{Ø}110\text{mm}$ , with collars $\leq \text{Ø}110\text{mm}$ at $\geq 30\text{mm}$ height EI 60 & E 120	
Cables $\leq \text{Ø} 80\text{mm}$ , in a bundle $\leq \text{Ø}110\text{mm}$ , with collars $\leq \text{Ø}110\text{mm}$ at $\geq 50\text{mm}$ height EI 60 & E 120	
Cables $\leq \text{Ø} 80\text{mm}$ , in a bundle $\leq \text{Ø}160\text{mm}$ , with collars $\leq \text{Ø}160\text{mm}$ at $\geq 60\text{mm}$ height EI 60 & E 120	
Sound reduction (seal only)	58dB
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
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Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Before installing Protecta® FR Putty Cord ensure that the surface of all service penetrations and surrounding construction is wiped clean, dry, free from all loose contaminants, dust, oils and grease.
2. Place the Putty Cord around the services so that it seals the services to the wall all the way round.
3. Press the Putty Cord into the wall and services with your thumbs to form a fillet or V shape joint, ensuring good contact is made all the way round the services and the wall.




ETA 16/0322

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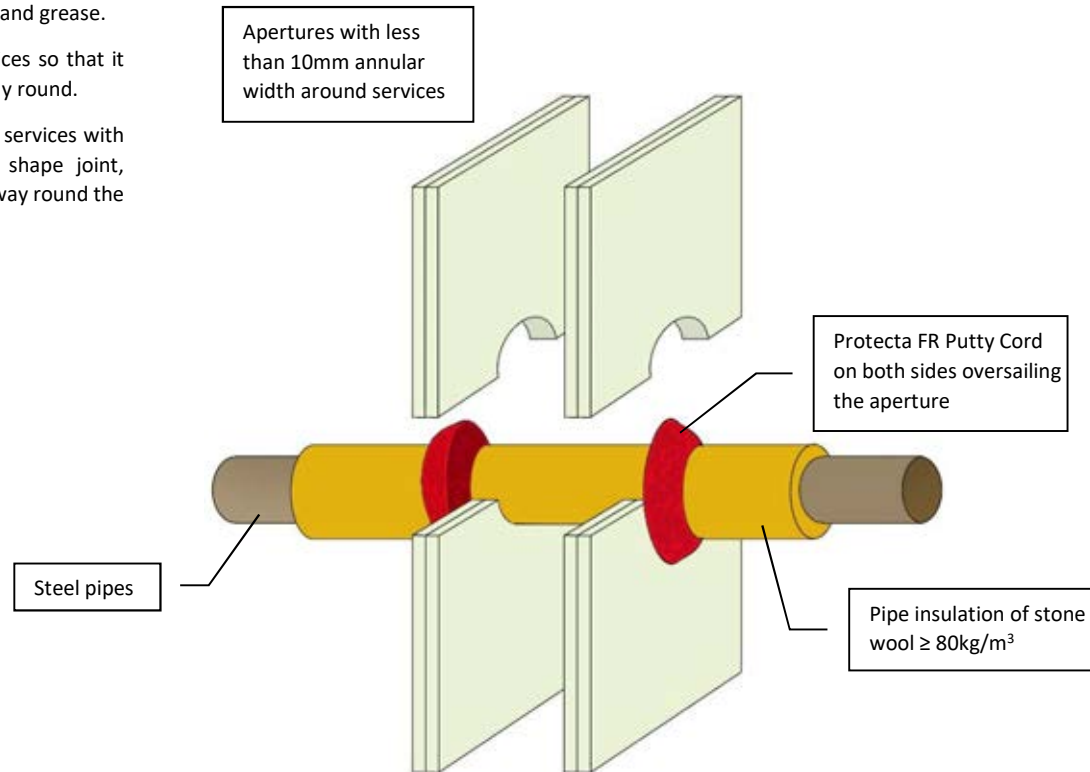
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Putty Cord Ø15mm
<b>Application</b>	Fire stopping of steel pipes in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards
<b>Fire &amp; Sound classification</b>	
Steel pipes ≤ Ø 22mm	EI 60 C/U & E 120 C/U
Steel pipes ≤ Ø 30mm	EI 45 C/U & E 120 C/U
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
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Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Putty Cord ensure that the surface of all service penetrations and surrounding construction is wiped clean, dry, free from all loose contaminants, dust, oils and grease.
2. Place the Putty Cord around the services so that it seals the services to the wall all the way round.
3. Press the Putty Cord into the wall and services with your thumbs to form a fillet or V shape joint, ensuring good contact is made all the way round the services and the wall.




ETA 16/0322

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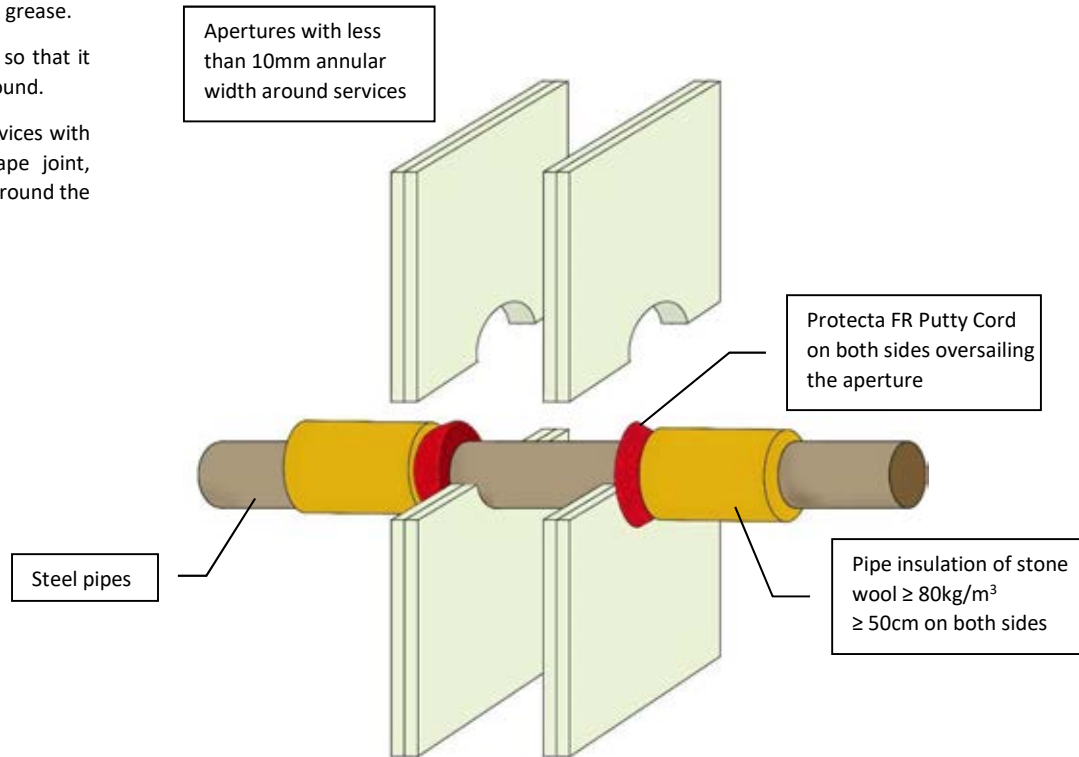
Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Putty Cord Ø15mm
<b>Application</b>	Fire stopping of steel pipes in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards
<b>Fire &amp; Sound classification</b>	
Steel pipes ≤ Ø40mm with 20mm thick continuous pipe insulation EI 120 C/U & E 120 C/U	
Steel pipes ≤ Ø324mm with 30-80mm thick continuous pipe insulation EI 60 C/U & E 90 C/U	
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
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<b>A4</b>	29/5/18
Scale:	Drawn by:
<b>NTS</b>	K.B



**Installation Instructions**

1. Before installing Protecta® FR Putty Cord ensure that the surface of all service penetrations and surrounding construction is wiped clean, dry, free from all loose contaminants, dust, oils and grease.
2. Place the Putty Cord around the services so that it seals the services to the wall all the way round.
3. Press the Putty Cord into the wall and services with your thumbs to form a fillet or V shape joint, ensuring good contact is made all the way round the services and the wall.




ETA 16/0322

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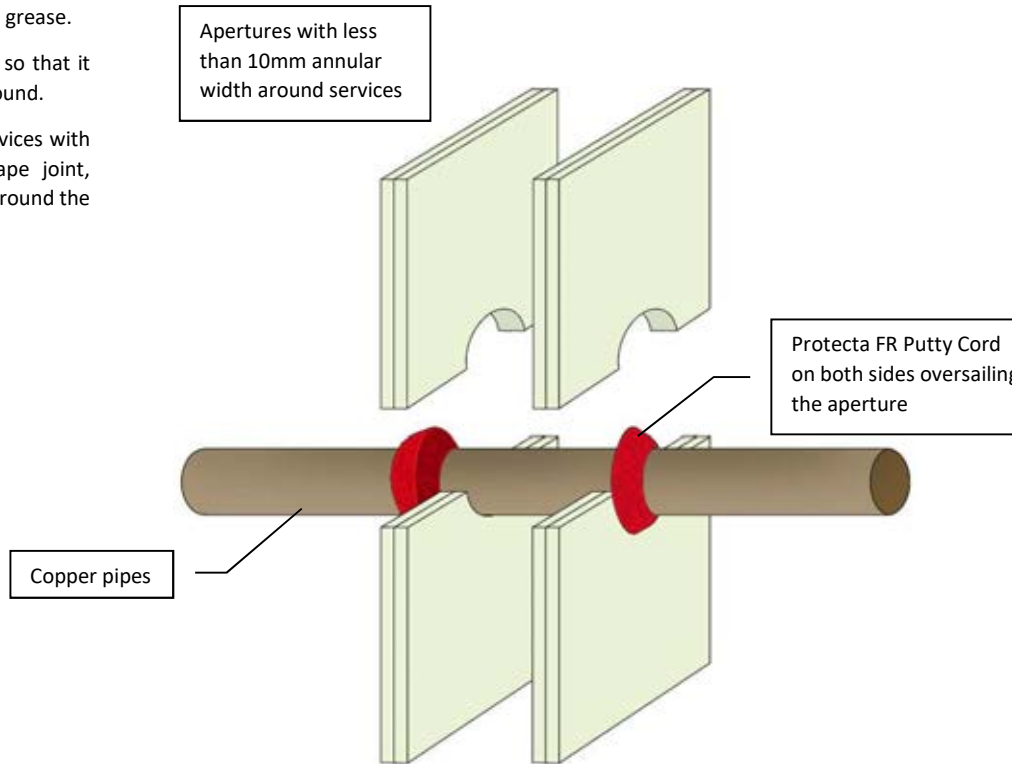
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Putty Cord Ø15mm
<b>Application</b>	Fire stopping of steel pipes in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards
<b>Fire &amp; Sound classification</b>	
Steel pipes ≤ Ø40mm with ≥ 20mm thick pipe insulation	EI 120 C/U & E 120 C/U
Steel pipes ≤ Ø324mm with ≥ 30mm thick pipe insulation	EI 120 C/U & E 120 C/U
	
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Sheet size:	Drawn date & no:
<b>A4</b>	11/11/18
Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Putty Cord ensure that the surface of all service penetrations and surrounding construction is wiped clean, dry, free from all loose contaminants, dust, oils and grease.
2. Place the Putty Cord around the services so that it seals the services to the wall all the way round.
3. Press the Putty Cord into the wall and services with your thumbs to form a fillet or V shape joint, ensuring good contact is made all the way round the services and the wall.




ETA 16/0322

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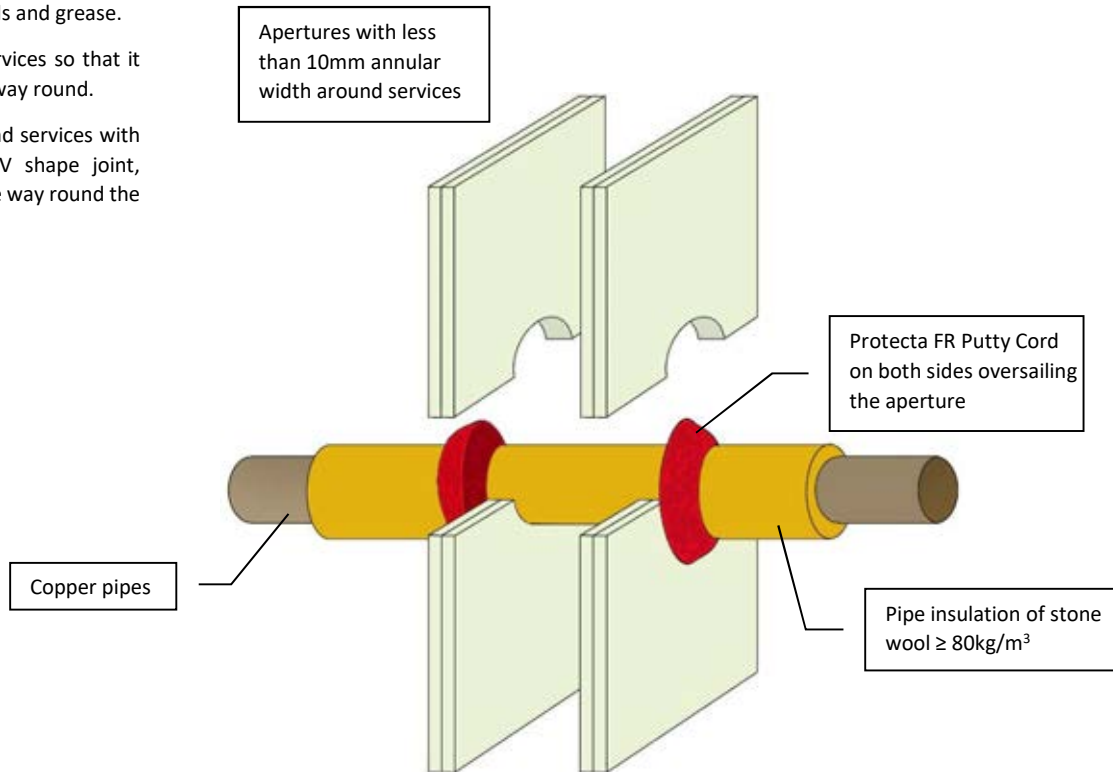
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Putty Cord Ø15mm
<b>Application</b>	Fire stopping of copper pipes in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards
<b>Fire &amp; Sound classification</b>	
Copper pipes ≤ Ø 6mm	EI 120 C/C & E 120 C/C
Copper pipes ≤ Ø 12mm	EI 60 C/C & E 120 C/C
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
<b>A4</b>	29/5/18
Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Putty Cord ensure that the surface of all service penetrations and surrounding construction is wiped clean, dry, free from all loose contaminants, dust, oils and grease.
2. Place the Putty Cord around the services so that it seals the services to the wall all the way round.
3. Press the Putty Cord into the wall and services with your thumbs to form a fillet or V shape joint, ensuring good contact is made all the way round the services and the wall.



Client:

Job Title:

**Products** Protecta FR Putty Cord Ø15mm  
**Application** Fire stopping of copper pipes in flexible walls  
**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**  
 Copper pipes ≤ Ø12mm with 20mm thick continuous pipe insulation  
 EI 60 C/C & E 90 C/C  
 Copper pipes ≤ Ø54mm with 30-80mm thick continuous pipe insulation  
 EI 60 C/C & E 90 C/C



Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB  
 Tel: +44 (0) 148 4421036  
 Email: post.uk@polyseam.com



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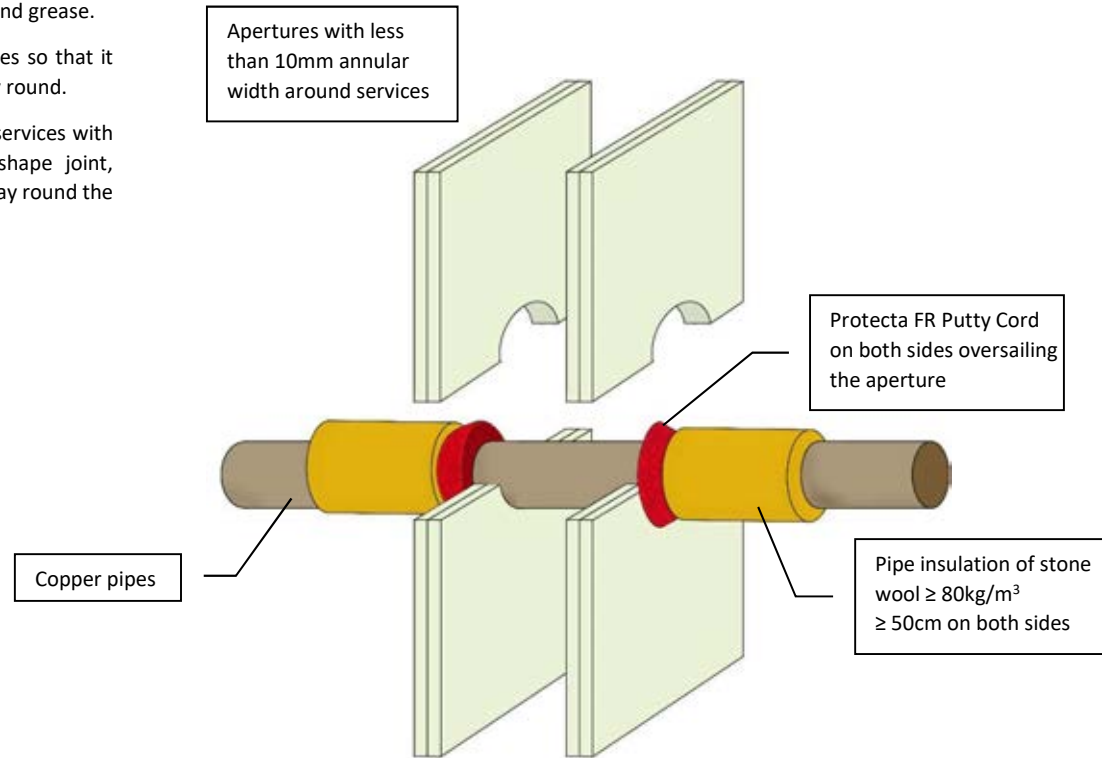
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Sheet size: <b>A4</b>	Drawn date & no: 11/11/18
Scale: <b>NTS</b>	Drawn by: K.B

**Installation Instructions**

1. Before installing Protecta® FR Putty Cord ensure that the surface of all service penetrations and surrounding construction is wiped clean, dry, free from all loose contaminants, dust, oils and grease.
2. Place the Putty Cord around the services so that it seals the services to the wall all the way round.
3. Press the Putty Cord into the wall and services with your thumbs to form a fillet or V shape joint, ensuring good contact is made all the way round the services and the wall.



Client:

Job Title:

**Products** Protecta FR Putty Cord Ø15mm  
**Application** Fire stopping of copper pipes in flexible walls  
**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**  
 Copper pipes ≤ Ø54mm with ≥ 20mm thick pipe insulation  
 EI 60 C/C & E 90 C/C

Polyseam Ltd, 15 St Andrews Road,  
 Huddersfield, West Yorkshire, HD1 6SB  
 Tel: +44 (0) 148 4421036  
 Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)



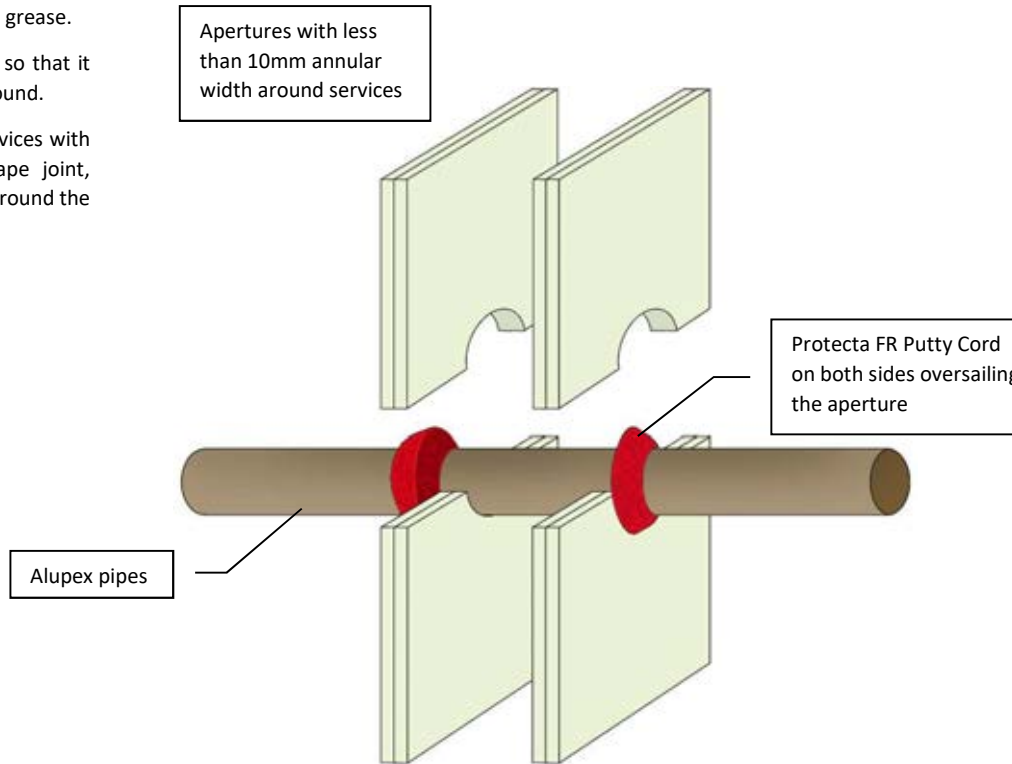
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 Signed and approved:

Sheet size: <b>A4</b>	Drawn date & no: 29/5/18
Scale: <b>NTS</b>	Drawn by: K.B

**Installation Instructions**

1. Before installing Protecta® FR Putty Cord ensure that the surface of all service penetrations and surrounding construction is wiped clean, dry, free from all loose contaminants, dust, oils and grease.
2. Place the Putty Cord around the services so that it seals the services to the wall all the way round.
3. Press the Putty Cord into the wall and services with your thumbs to form a fillet or V shape joint, ensuring good contact is made all the way round the services and the wall.




ETA 16/0322

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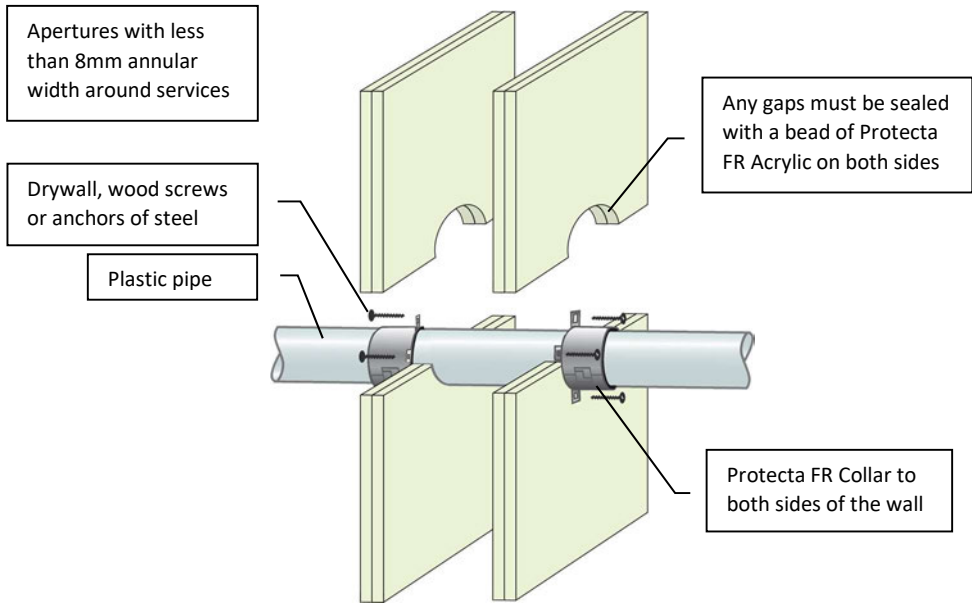
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Putty Cord Ø15mm
<b>Application</b>	Fire stopping of alupex pipes in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards
<b>Fire &amp; Sound classification</b>	
Alupex pipes ≤ Ø 16mm EI 120 C/C & E 120 C/C	
Alupex pipes ≤ Ø 20mm EI 90 C/C & E 120 C/C	
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
<b>A4</b>	11/11/18
Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Before fitting the collars ensure that any gaps between the pipe and the separating element are sealed with a bead of Protecta® FR Acrylic to cover the opening.
2. Place a suitable collar around the pipe and ensure that the collar shell and fixing lugs are positioned tightly to the surface of the wall, so that the fixings can be inserted fully.
3. Where the surface is uneven, apply a sealing bead of Protecta® FR Acrylic between the wall and the collar shell.
4. Attach the collar with ≥ Ø4mm drywall, wood screws or anchors with a length suitable for the number of boards that form the wall.



Services	Minimum Collar Height	Classification
≤ Ø50mm PVC-U & PVC-C	30mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 90)
≤ Ø110mm PVC-U & PVC-C	30mm	EI 60 C/C, EI 60 U/C
≤ Ø140mm PVC-U & PVC-C	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 90)
≤ Ø160mm PVC-U & PVC-C	60mm	EI 90 C/C, EI 90 U/C, EI 60 C/U, EI 60 U/U
Ø315x9.2mm PVC-U & PVC-C	75mm	EI 60 C/C
≤ Ø50mm PE, ABS & SAN+PVC	30mm	EI 60 C/C, EI 60 U/C (E 90)
≤ Ø50mm PE, ABS & SAN+PVC	50mm	EI 90 C/C, EI 90 U/C, EI 90 C/U, EI 90 U/U (E 120)
≤ Ø110mm PE, ABS & SAN+PVC	30mm	EI 60 C/C, EI 60 U/C
≤ Ø110mm PE, ABS & SAN+PVC	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 90)
≤ Ø140mm PE, ABS & SAN+PVC	60mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 90)
Ø160mm PE, ABS & SAN+PVC	60mm	EI 90 C/C, EI 90 U/C, EI 90 C/U, EI 90 U/U
Ø200x18.2mm PE, ABS & SAN+PVC	75mm	EI 60 C/C
Ø250x22.7mm PE, ABS & SAN+PVC	75mm	EI 60 C/C
≤ Ø50mm PP	30mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 90)
≤ Ø110mm PP	30mm	EI 60 C/C, EI 60 U/C (E 90)
≤ Ø110mm PP	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 90)
≤ Ø160mm PP	60mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U



ETA 18/0854

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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:

Job Title:

**Products** Protecta FR Collar  
Protecta FR Acrylic

**Application** Fire stopping of plastic pipes in flexible walls

**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**

Fire classifications in table on the left. For full specifications, please refer to the Installation Instructions.

Sound reduction (seal only) 58dB

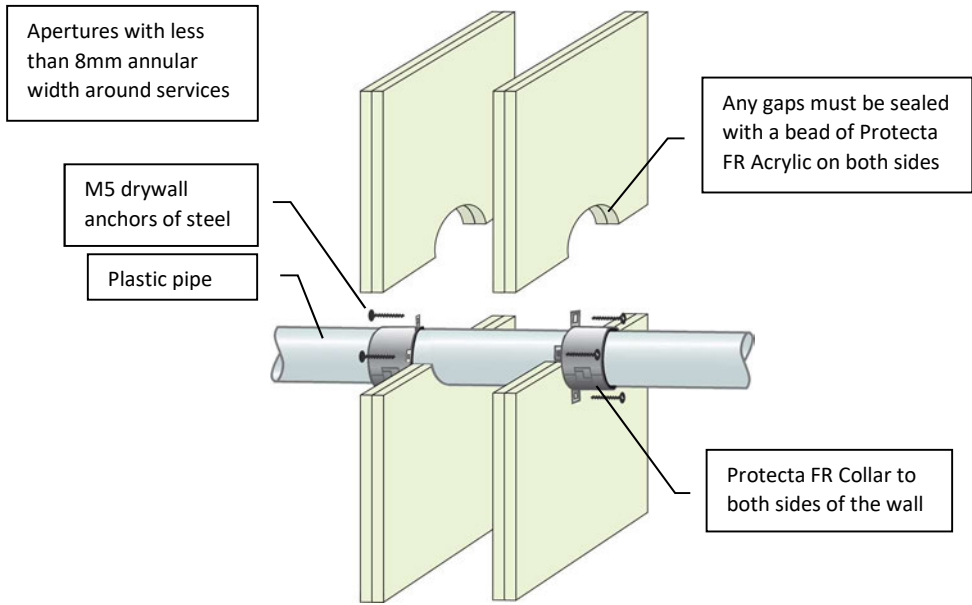
**Protecta®**  
Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

Sheet size: **A4**      Drawn date & no: **15/7/19**

Scale: **NTS**      Drawn by: **K.B**

Installation Instructions

1. Before fitting the collars ensure that any gaps between the pipe and the separating element are sealed with a bead of Protecta® FR Acrylic to cover the opening.
2. Place a suitable collar around the pipe and ensure that the collar shell and fixing lugs are positioned tightly to the surface of the wall, so that the fixings can be inserted fully.
3. Where the surface is uneven, apply a sealing bead of Protecta® FR Acrylic between the wall and the collar shell.
4. Attach the collar with M5 drywall anchors with a length suitable for the number of boards that form the wall.



Services	Minimum Collar Height	Classification
≤ Ø110mm PVC-U & PVC-C	50mm	EI 120 C/C
≤ Ø160mm PVC-U & PVC-C	60mm	EI 120 C/C
≤ Ø50mm PE, ABS & SAN+PVC	50mm	EI 120 C/C
≤ Ø110mm PE, ABS & SAN+PVC	50mm	EI 90 C/C (E 120)
Ø110x3.4mm PE, ABS & SAN+PVC	50mm	EI 120 C/C
≤ Ø160mm PE, ABS & SAN+PVC	60mm	EI 90 C/C
Ø160x9.5mm PE, ABS & SAN+PVC	60mm	EI 120 C/C
≤ Ø50mm PP	50mm	EI 120 C/C
≤ Ø110mm PP	50mm	EI 90 C/C (E 120)
≤ Ø140mm PP	60mm	EI 90 C/C (E 120)
Ø160mm PP	60mm	EI 120 C/C

Client:

Job Title:

**Products** Protecta FR Collar  
Protecta FR Acrylic

**Application** Fire stopping of plastic pipes in 2 hour fire rated flexible walls

**Construction** Minimum wall thickness of 120 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**

Fire classifications in table on the left. For full specifications, please refer to the Installation Instructions.

Sound reduction (seal only) 58dB

Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: post.uk@polyseam.com



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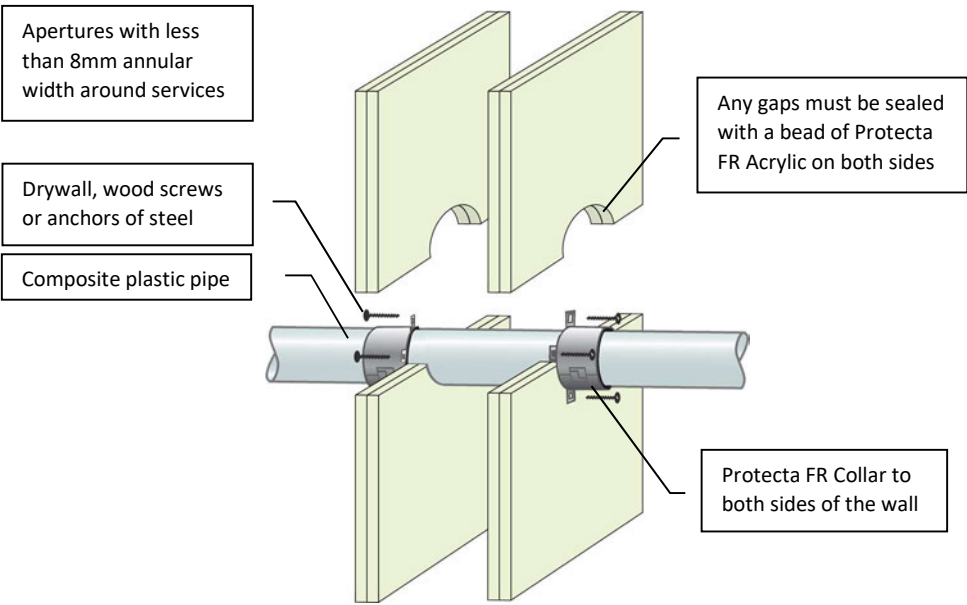
Signed and approved:

Sheet size: **A4**      Drawn date & no: **15/7/19**

Scale: **NTS**      Drawn by: **K.B**

**Installation Instructions**

1. Before fitting the collars ensure that any gaps between the pipe and the separating element are sealed with a bead of Protecta® FR Acrylic to cover the opening.
2. Place a suitable collar around the pipe and ensure that the collar shell and fixing lugs are positioned tightly to the surface of the wall, so that the fixings can be inserted fully.
3. Where the surface is uneven, apply a sealing bead of Protecta® FR Acrylic between the wall and the collar shell.
4. Attach the collar with ≥ Ø4mm drywall, wood screws or anchors with a length suitable for the number of boards that form the wall.



Services	Minimum Collar Height	Classification
≤ Ø32mm Aquatherm Green SDR9	30mm	EI 120 C/C
≤ Ø50mm Aquatherm Green SDR9	50mm	EI 120 C/C
≤ Ø110mm Aquatherm Green SDR9	50mm	EI 60 C/C (E 120)
≤ Ø50mm BluePower	50mm	EI 90 C/C, EI 90 U/C, EI 90 C/U, EI 90 U/U (E 120)
≤ Ø110mm BluePower	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U (E 120)
Ø125mm BluePower	60mm	EI 60 C/C, EI 60 U/C, EI 60 C/U
Ø160mm BluePower	60mm	EI 90 C/C, EI 90 U/C, EI 90 C/U
≤ Ø50mm Geberit Silent-PP	50mm	EI 120 C/C, EI 120 U/C, EI 120 C/U, EI 120 U/U
≤ Ø110mm Geberit Silent-PP	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 120)
≤ Ø50mm Polo-Kal NG pipes	50mm	EI 120 C/C, EI 120 U/C, EI 120 C/U, EI 120 U/U
≤ Ø110mm Polo-Kal NG pipes	50mm	EI 90 C/C, EI 90 U/C, EI 90 C/U, EI 90 U/U (E 120)
Ø125mm Polo-Kal NG pipes	60mm	EI 120 C/C, EI 120 U/C (E 120 C/U, E 120 U/U)
Ø160mm Polo-Kal NG pipes	60mm	EI 120 C/C, EI 120 U/C, EI 120 C/U, EI 120 U/U
≤ Ø50mm Rehau Raupiano Plus	50mm	EI 90 C/C, EI 90 U/C, EI 90 C/U, EI 90 U/U (E 120)
≤ Ø110mm Rehau Raupiano Plus	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 120)
≤ Ø160mm Rehau Raupiano Plus	60mm	EI 120 C/C, EI 120 U/C, EI 120 C/U, EI 120 U/U
≤ Ø50mm Wavin SiTech	50mm	EI 120 C/C, EI 120 U/C, EI 120 C/U, EI 120 U/U
≤ Ø110mm Wavin SiTech	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 120)



ETA 18/0854

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Signed and approved:

Client:

Job Title:

**Products** Protecta FR Collar  
Protecta FR Acrylic

**Application** Fire stopping of composite plastic pipes in flexible walls

**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**

Fire classifications in table on the left. For full specifications, please refer to the Installation Instructions.

Sound reduction (seal only) 58dB

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Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

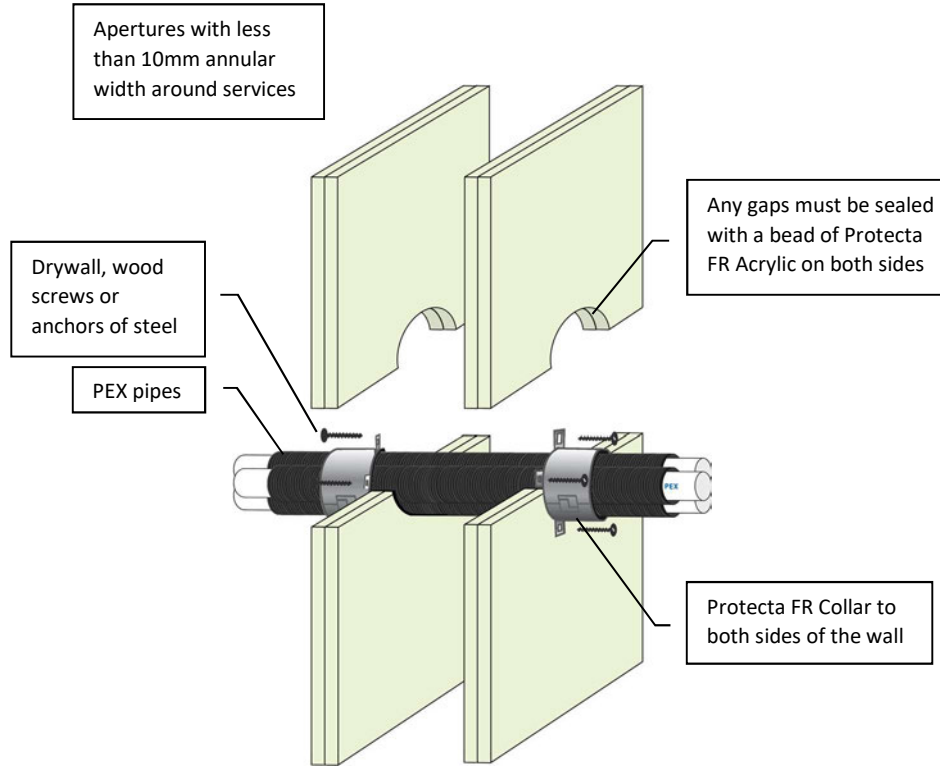
Sheet size: **A4**      Drawn date & no: **27/7/19**

Scale: **NTS**      Drawn by: **K.B**



Installation Instructions

1. Before fitting the collars ensure that any gaps between the pipes and the separating element are sealed with a bead of Protecta® FR Acrylic to cover the opening.
2. Place a suitable collar around the pipes and ensure that the collar shell and fixing lugs are positioned tightly to the surface of the wall, so that the fixings can be inserted fully.
3. Where the surface is uneven, apply a sealing bead of Protecta® FR Acrylic between the wall and the collar shell.
4. Attach the collar with  $\geq \text{Ø}4\text{mm}$  drywall, wood screws or anchors with a length suitable for the number of boards that form the wall.




ETA 18/0854

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Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Collar Protecta FR Acrylic
<b>Application</b>	Fire stopping of PEX pipe-in-pipes in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards
<b>Fire &amp; Sound classification</b>	
PEX pipes $\leq \text{Ø} 25\text{mm}$ , single or in a bundle $\leq \text{Ø}55\text{mm}$ , with collars $\leq \text{Ø}55\text{mm}$ at $\geq 30\text{mm}$ height	
EI 90 & E 120	
Sound reduction (seal only)	58dB
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
<b>A4</b>	27/7/19
Scale:	Drawn by:
<b>NTS</b>	K.B

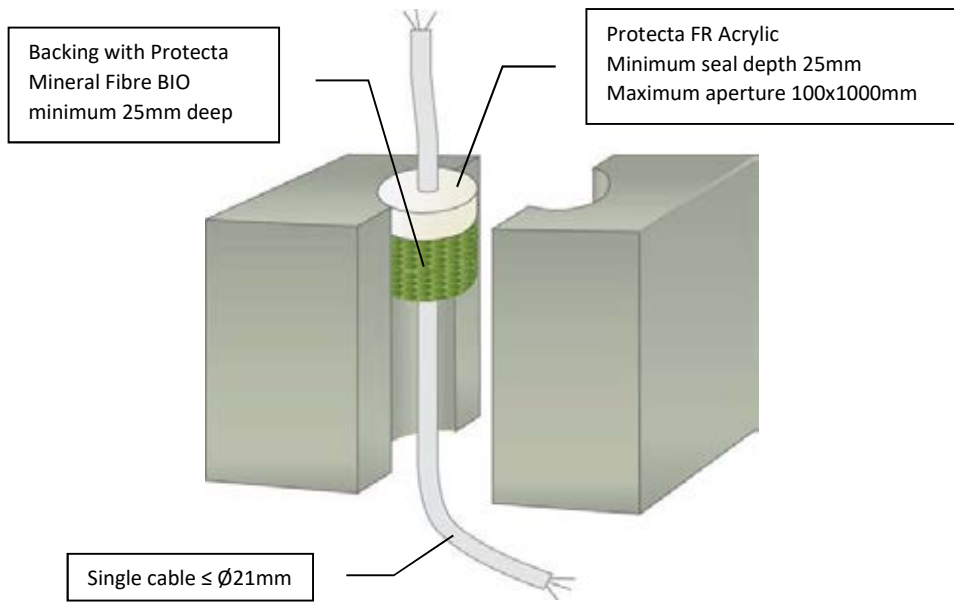
## Appendix III

-

Service penetration solutions with gaps  $\geq 10\text{mm}$  and  $\leq 30\text{mm}$

Installation Instructions

1. Before installing Protecta® FR Acrylic ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Where Protecta® FR Acrylic is to be installed against surfaces that cannot tolerate direct contact; appropriate surface preparation should be made (contact Polyseam for guidance in these cases). For paints sensitive to sealing compounds, priming with a PVA primer is recommended.
3. When installing Protecta® FR Acrylic in hollow floor slabs or boards, fire seals specified as single sided should be installed from the soffit side of the floor assuming there is sufficient thickness of concrete below the void to follow the installation guide. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
4. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.




ETA 18/0904

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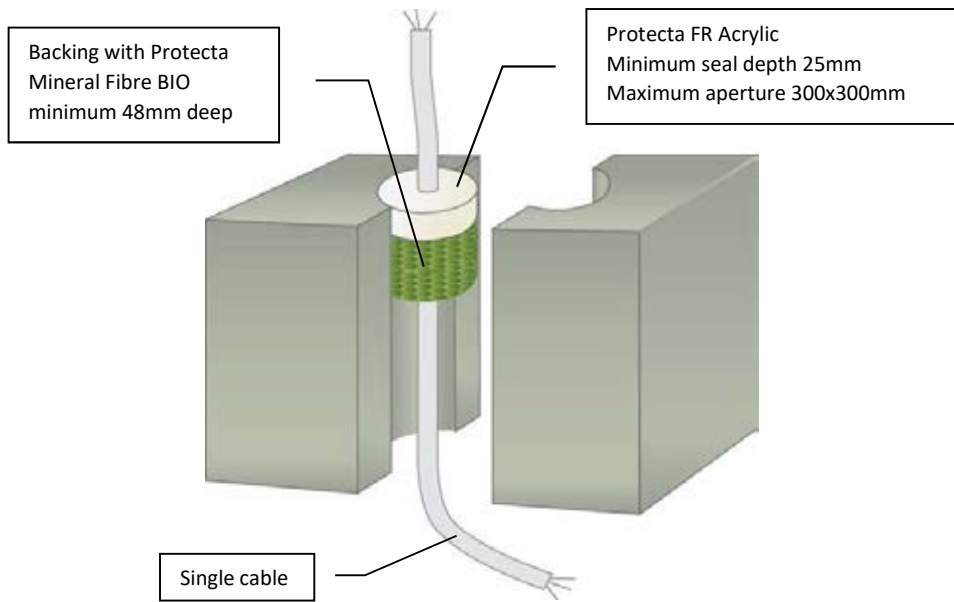
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Acrylic Protecta Mineral Fibre BIO
<b>Application</b>	Fire stopping of cables in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup> .
<b>Fire &amp; Sound classification</b>	
Single sided seal top or soffit face position EI 60 & E 120	
Sound reduction (seal only) Rw 62 dB	
	
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Sheet size: <b>A4</b>	Drawn date & no: 4/3/15
Scale: <b>NTS</b>	Drawn by: K.B

Installation Instructions

1. Before installing Protecta® FR Acrylic ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Where Protecta® FR Acrylic is to be installed against surfaces that cannot tolerate direct contact; appropriate surface preparation should be made (contact Polyseam for guidance in these cases). For paints sensitive to sealing compounds, priming with a PVA primer is recommended.
3. When installing Protecta® FR Acrylic in hollow floor slabs or boards, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
4. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Protecta Mineral Fibre BIO

**Application** Fire stopping of cables in rigid floors

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>.

**Fire & Sound classification**

Cable ≤ Ø21mm single sided seal top face position  
EI 90 & E 120

Cable Ø23-27mm 1x185mm<sup>2</sup> core with PVC sheath single sided seal top face position  
EI 240 & E 240

Sound reduction (seal only)  
Rw 62 dB

Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: post.uk@polyseam.com



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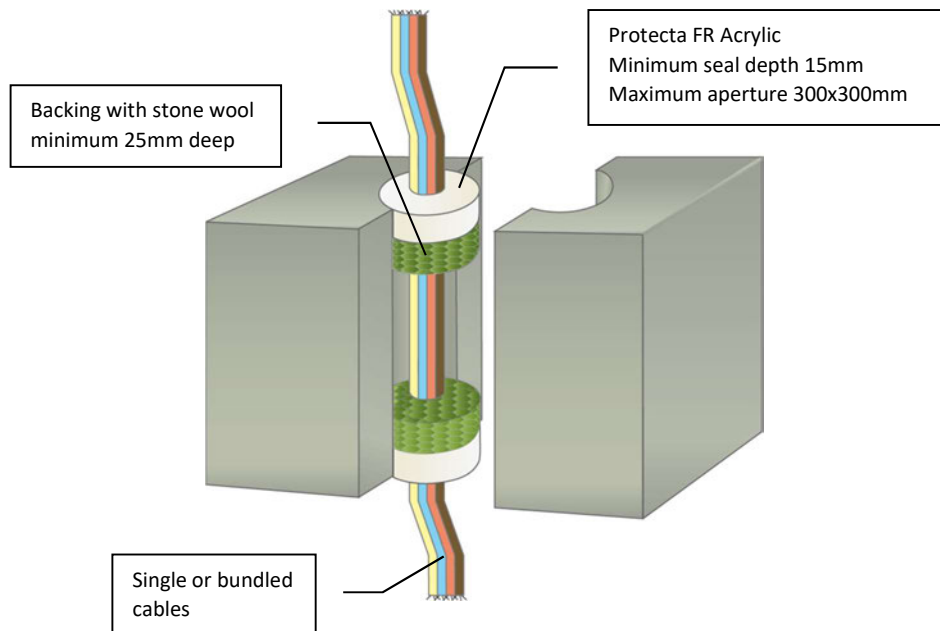
Signed and approved:

Sheet size: **A4** Drawn date & no: 4/3/15

Scale: **NTS** Drawn by: **K.B**

Installation Instructions

1. Before installing Protecta® FR Acrylic ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Where Protecta® FR Acrylic is to be installed against surfaces that cannot tolerate direct contact; appropriate surface preparation should be made (contact Polyseam for guidance in these cases). For paints sensitive to sealing compounds, priming with a PVA primer is recommended.
3. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
4. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
5. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
6. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of cables in rigid floors

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>.

**Fire & Sound classification**

Cables ≤ Ø21mm single or in a bundle  
≤ Ø100mm EI 120 & E 120

Cables ≤ Ø50mm single or in a bundle  
≤ Ø100mm EI 90 & E 120

Cables ≤ Ø80mm single or in a bundle  
≤ Ø100mm EI 60 & E 120

Sound reduction (seal only)  
Rw 62 dB

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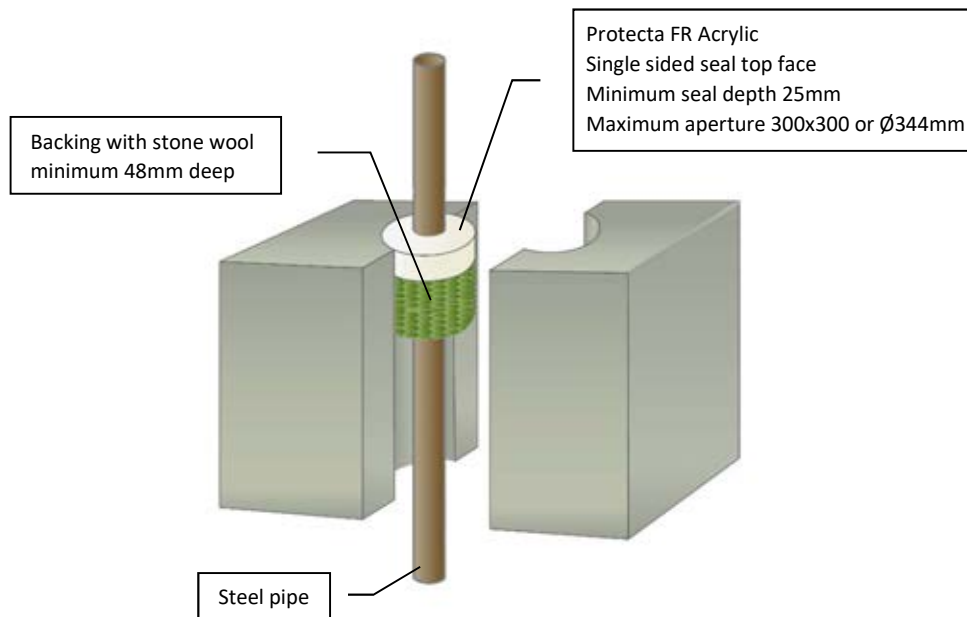
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3. As Protecta® FR Acrylic is water based, in cases where corrosion protection is a problem; some metals may require a barrier between the sealant and the metal surface prior to this installation.
4. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of steel pipes in rigid floors

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>.

**Fire & Sound classification**

Steel pipe ≤ Ø16mm  
EI 120 C/U & E 120 C/U

Steel pipe ≤ Ø324mm  
E 120 C/U

Sound reduction (seal only)  
Rw 62 dB



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Huddersfield, West Yorkshire, HD1 6SB  
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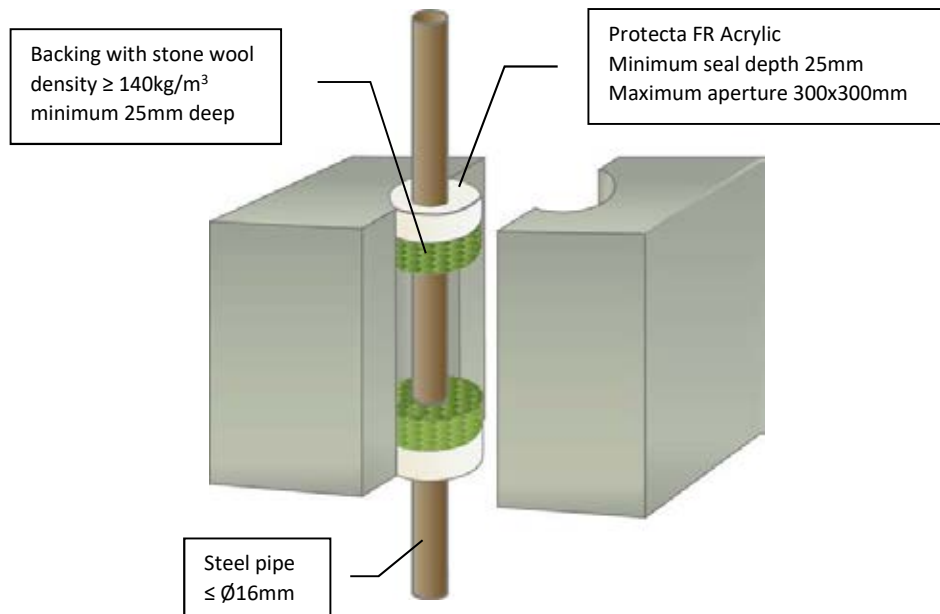
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Installation Instructions

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5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of steel pipes in rigid floors

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m³.

**Fire & Sound classification**

Double sided seal  
E1 240 C/U & E 240 C/U

Sound reduction (seal only)  
Rw 62 dB

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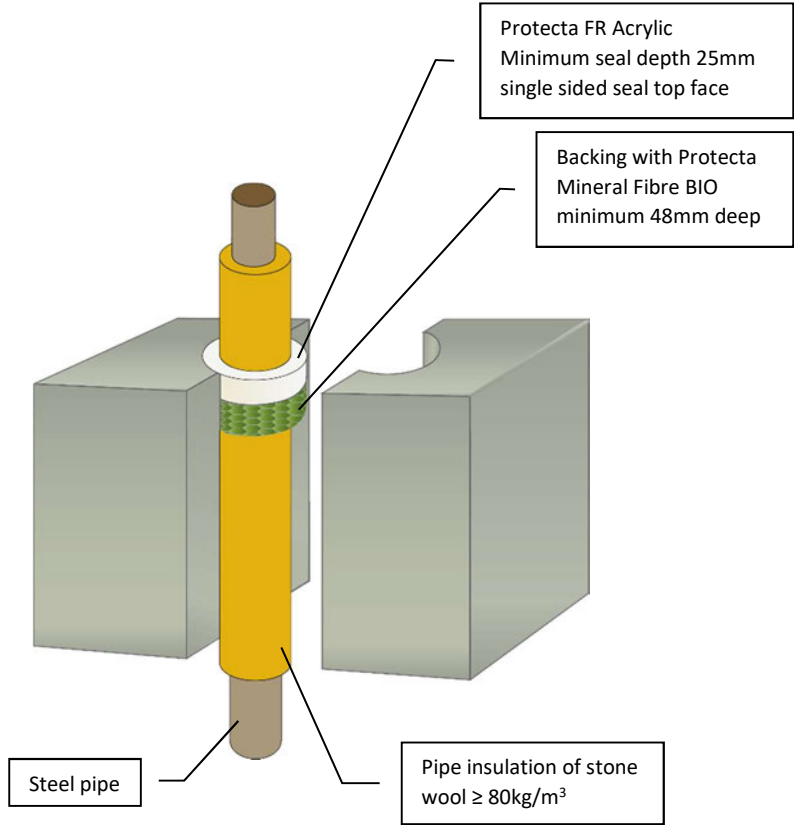
Signed and approved:

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Scale: **NTS** Drawn by: **K.B**

Installation Instructions

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3. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
4. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
5. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
6. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints..



Client:	
Job Title:	
<b>Products</b>	Protecta FR Acrylic Protecta Mineral Fibre BIO
<b>Application</b>	Fire stopping of steel pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup> .

<b>Fire &amp; Sound classification</b>	
Steel pipe ≤ Ø324mm with 20-80mm thick continuous pipe insulation in maximum aperture 300x300mm or Ø504mm EI 240 C/U & E 240 C/U	
Sound reduction (seal only)	Rw 62dB

**Protecta**  
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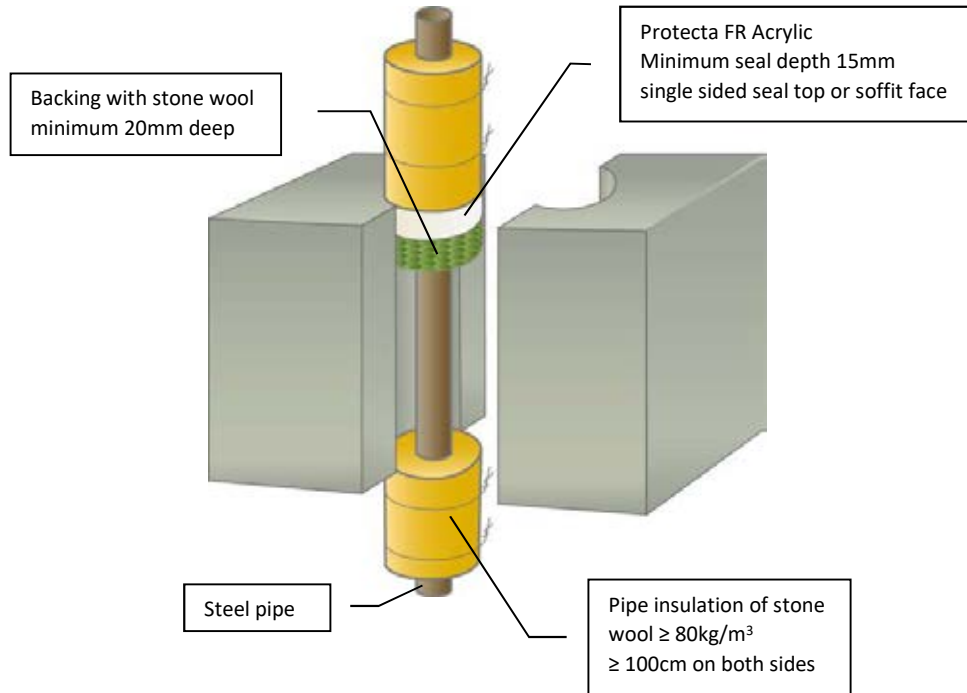
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Scale:	Drawn by:
<b>NTS</b>	K.B



Installation Instructions

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3. As Protecta® FR Acrylic is water based, in cases where corrosion protection is a problem; some metals may require a barrier between the sealant and the metal surface prior to this installation.
4. When installing Protecta® FR Acrylic in hollow floor slabs or boards, fire seals specified as single sided should be installed from the soffit side of the floor assuming there is sufficient thickness of concrete to follow the installation guide. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
5. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
6. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
7. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
8. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.




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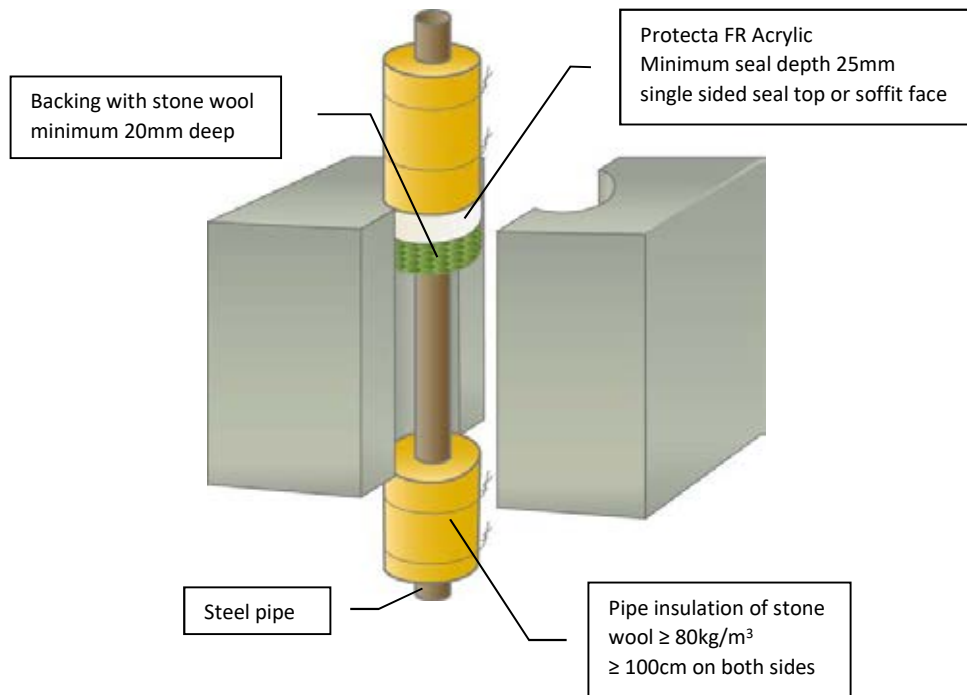
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Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Acrylic Stone wool
<b>Application</b>	Fire stopping of steel pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m³.
<b>Fire &amp; Sound classification</b>	
Steel pipe ≤ Ø40mm with ≥ 20mm thick pipe insulation in maximum aperture 300x300mm EI 60 C/U & E 90 C/U	
Steel pipe ≤ Ø40mm with ≥ 20mm thick pipe insulation and annular ring width 10mm EI 240 C/U & E 240 C/U	
Steel pipe ≤ Ø219mm with ≥ 30mm thick pipe insulation in maximum aperture 300x300mm EI 60 C/U & E 90 C/U	
Steel pipe ≤ Ø219mm with ≥ 30mm thick pipe insulation and annular ring width 10mm EI 90 C/U & E 240 C/U	
Sound reduction (seal only) Rw 62dB	
	
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Sheet size: <b>A4</b>	Drawn date & no: 4/3/15
Scale: <b>NTS</b>	Drawn by: K.B

Installation Instructions

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4. When installing Protecta® FR Acrylic in hollow floor slabs or boards, fire seals specified as single sided should be installed from the soffit side of the floor assuming there is sufficient thickness of concrete to follow the installation guide. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
5. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
6. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
7. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
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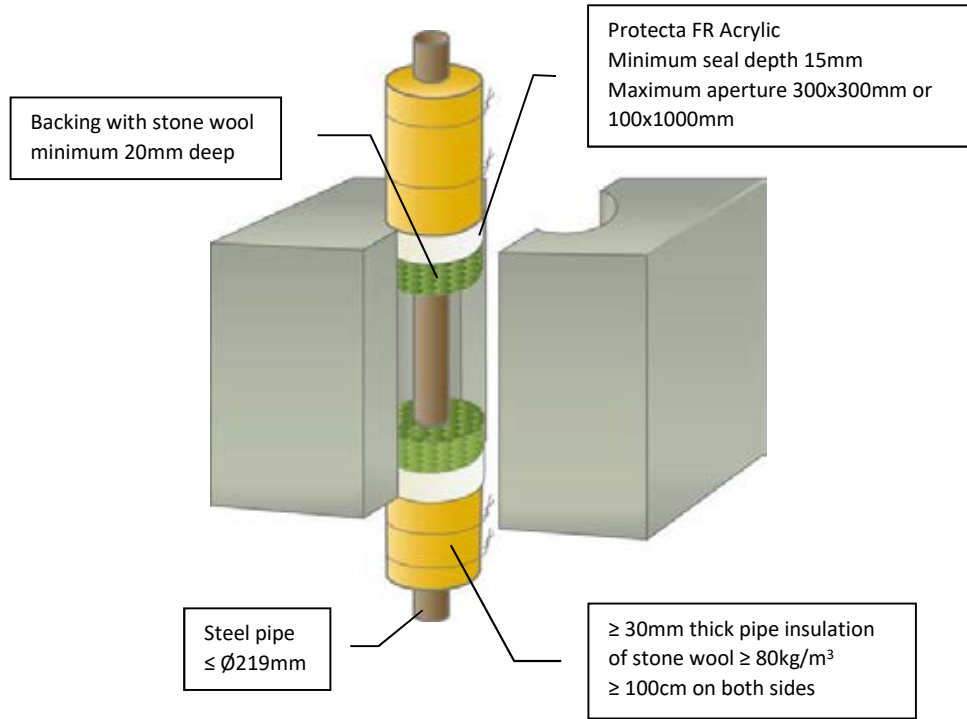
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Acrylic Stone wool
<b>Application</b>	Fire stopping of steel pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup> .
<b>Fire &amp; Sound classification</b>	
Steel pipe ≤ Ø40mm with ≥ 20mm thick pipe insulation in maximum aperture 300x300mm or 100x1000mm EI 90 C/U & E 120 C/U	
Steel pipe ≤ Ø219mm with ≥ 30mm thick pipe insulation in maximum aperture 300x300mm or 100x1000mm EI 90 C/U & E 120 C/U	
Sound reduction (seal only) Rw 62dB	
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
<b>A4</b>	4/3/15
Scale:	Drawn by:
<b>NTS</b>	K.B

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6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

<b>Products</b>	Protecta FR Acrylic Stone wool
<b>Application</b>	Fire stopping of steel pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup> .

<b>Fire &amp; Sound classification</b>	
Double sided seal	EI 120 C/U & E 240 C/U
Sound reduction (seal only)	Rw 62dB

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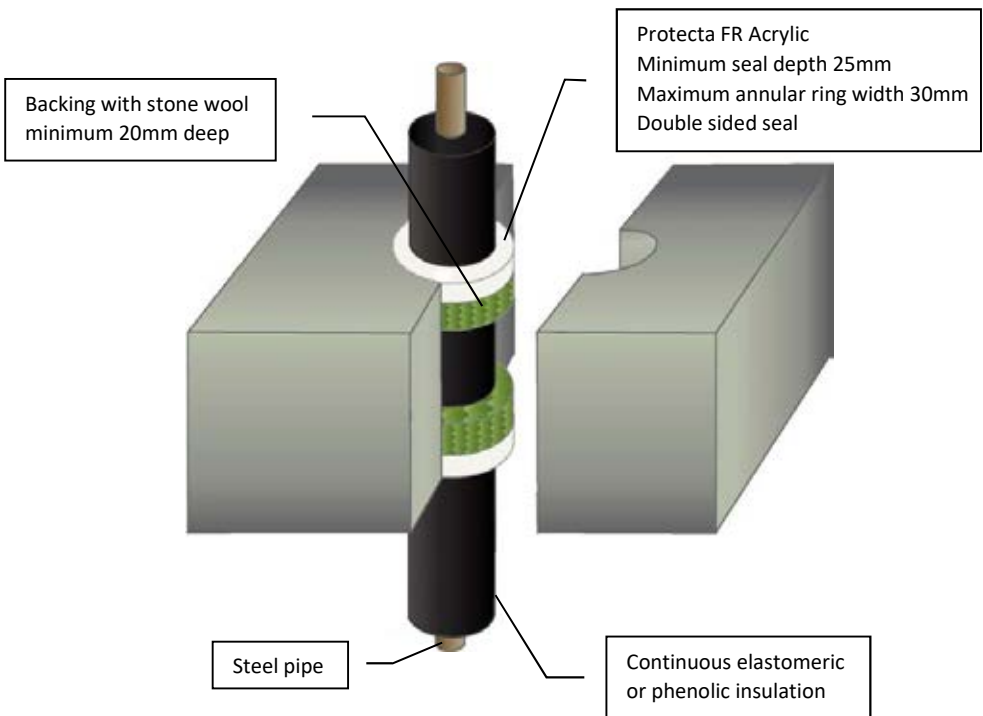
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3. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
4. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
5. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
6. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of steel pipes in rigid floors

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>.

**Fire & Sound classification**  
  
Steel pipe ≤ Ø40mm with 13 – 19mm thick pipe insulation  
EI 180 C/U & E 180 C/U  
  
Sound reduction (seal only)  
Rw 62dB

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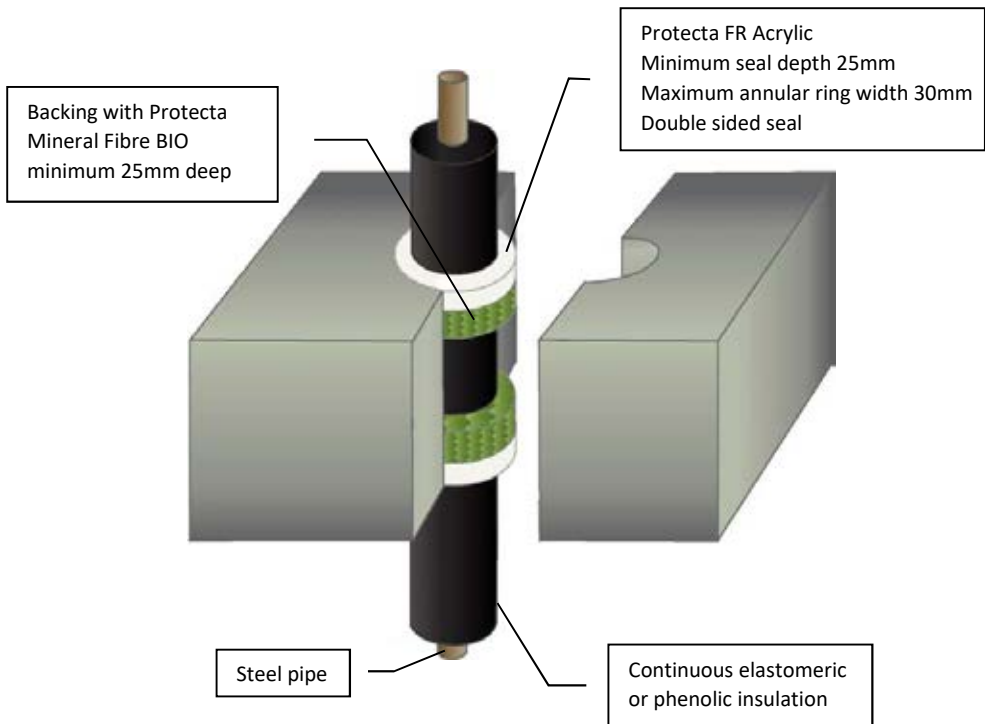
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3. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
4. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
5. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
6. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Protecta Mineral Fibre BIO

**Application** Fire stopping of steel pipes in rigid floors

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>.

**Fire & Sound classification**

Steel pipe ≤ Ø165mm with 13 – 19mm thick pipe insulation  
EI 60 C/U & E 60 C/U

Sound reduction (seal only)  
Rw 62dB

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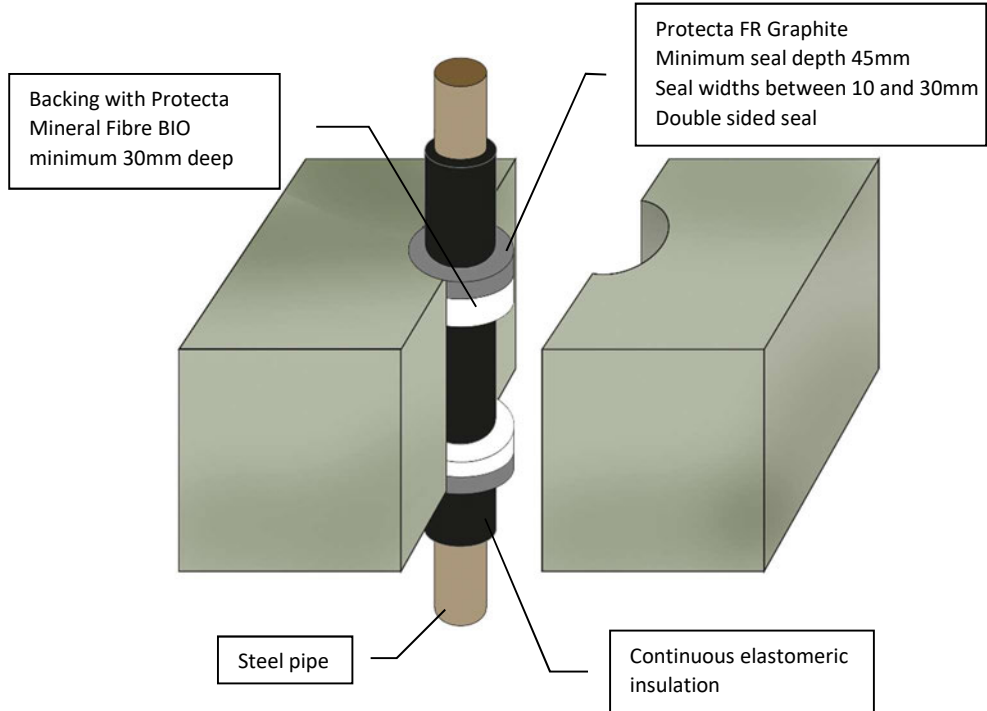
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Scale: **NTS**      Drawn by: **K.B**

Installation Instructions

1. Before installing Protecta® FR Graphite ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
3. Fill the gap or joint with Protecta® FR Graphite to the required depth.
4. Apply the sealant generously avoiding air bubbles. Finish the bead with a moist spatula or pallet knife. Avoid excessive tooling/smoothing as this may make the seal surface wet and soft.
5. Protecta® FR Graphite can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Graphite  
Protecta Mineral Fibre BIO

**Application** Fire stopping of steel pipes in rigid floors

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>.

**Fire & Sound classification**

Steel pipe ≤ Ø324mm with 25 – 49mm thick pipe insulation  
EI 60 C/U

Steel pipe ≤ Ø324mm with 50mm thick pipe insulation  
EI 120 C/U

Sound reduction (seal only)  
Rw 53dB

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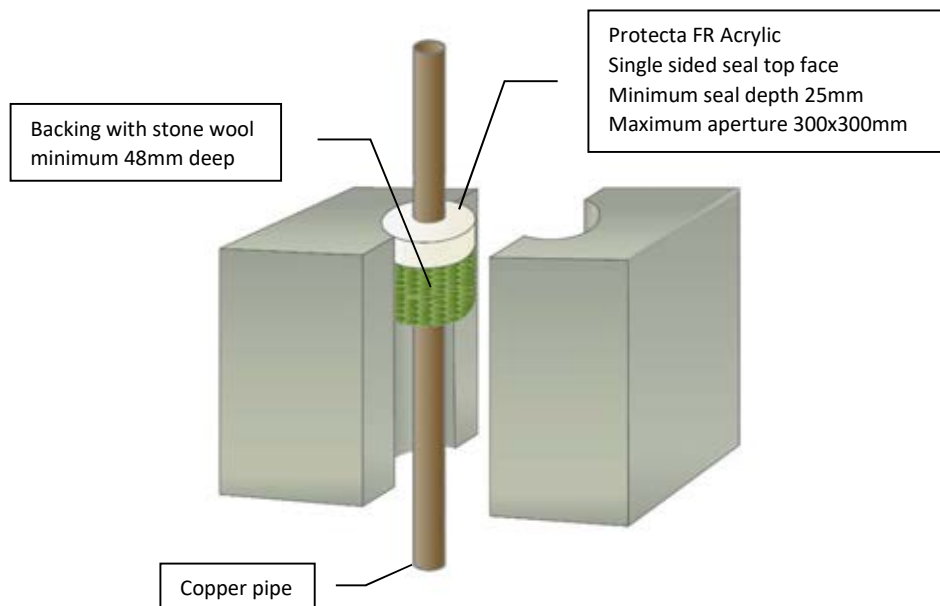
Signed and approved:

Sheet size: **A4** Drawn date & no: 11/11/18

Scale: **NTS** Drawn by: **K.B**

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4. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of copper pipes in rigid floors

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>

**Fire & Sound classification**

Copper pipe ≤ Ø6mm  
EI 120 C/C & E 120 C/C

Copper pipe ≤ Ø15mm  
EI 60 C/C & E 120 C/C

Copper pipe ≤ Ø54mm  
E 120 C/C

Sound reduction (seal only)  
Rw 62 dB



ETA 18/0904



Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: post.uk@polyseam.com

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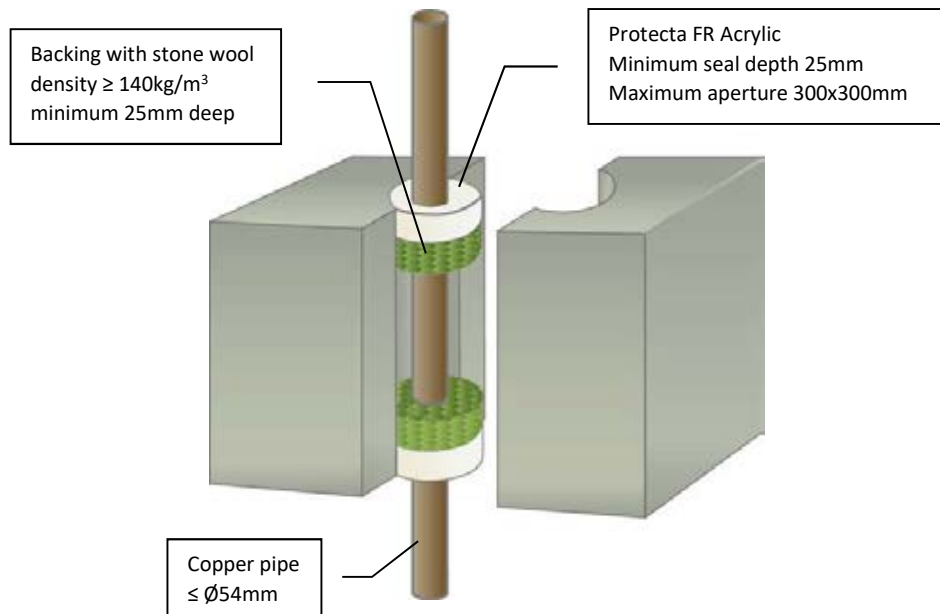
Signed and approved:

Sheet size: **A4**      Drawn date & no: 10/8/19

Scale: **NTS**      Drawn by: K.B

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Signed and approved:

Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of copper pipes in rigid floors

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m³.

**Fire & Sound classification**

Double sided seal  
EI 20 C/U & E 120 C/U

Sound reduction (seal only)  
Rw 62 dB

Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
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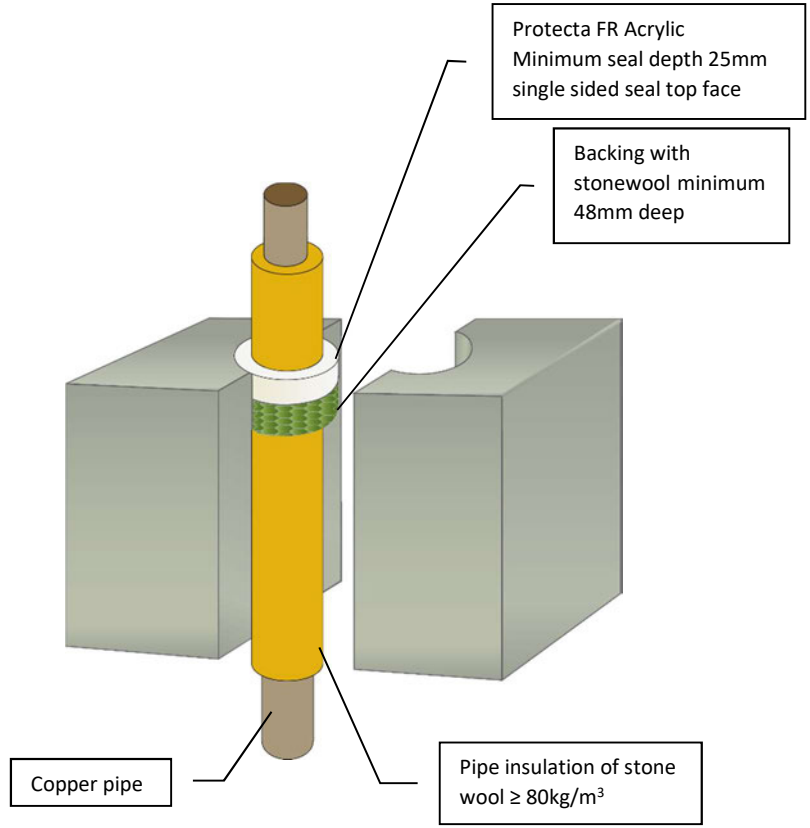
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Client:

Job Title:

**Products** Protecta FR Acrylic  
Stonewool

**Application** Fire stopping of copper pipes in rigid floors

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m³

**Fire & Sound classification**

Copper pipe ≤ Ø12mm with 20-80mm thick continuous pipe insulation in maximum aperture 300x300mm  
EI 240 C/C & E 240 C/C

Copper pipe ≤ Ø54mm with 20-80mm thick continuous pipe insulation in maximum aperture 300x300mm  
EI 180 C/C & E 240 C/C

Sound reduction (seal only)  
Rw 62dB

**Protecta®**  
Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
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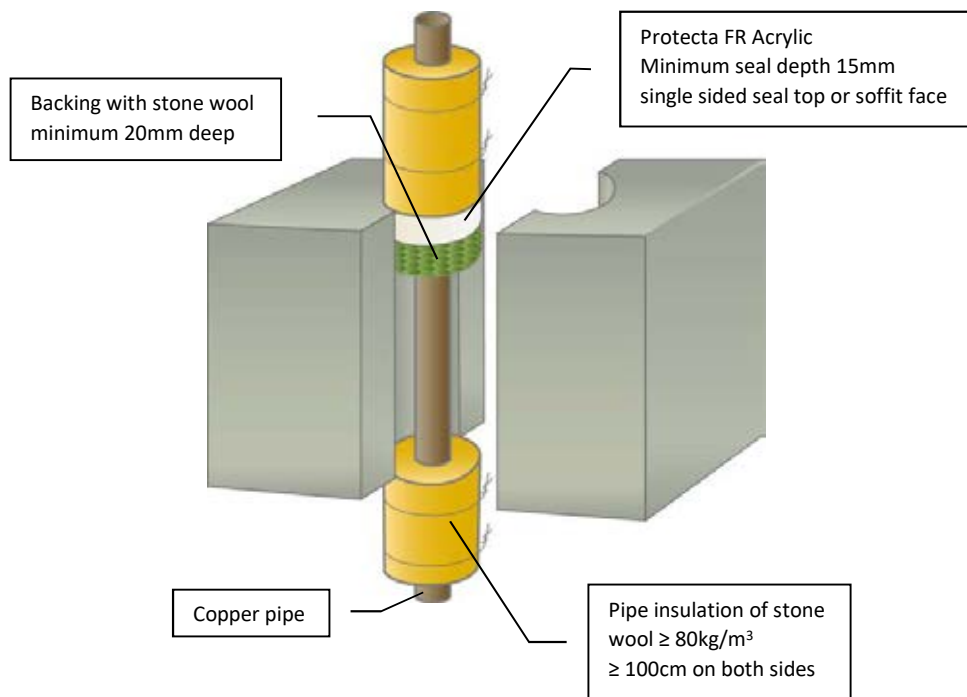
Signed and approved:

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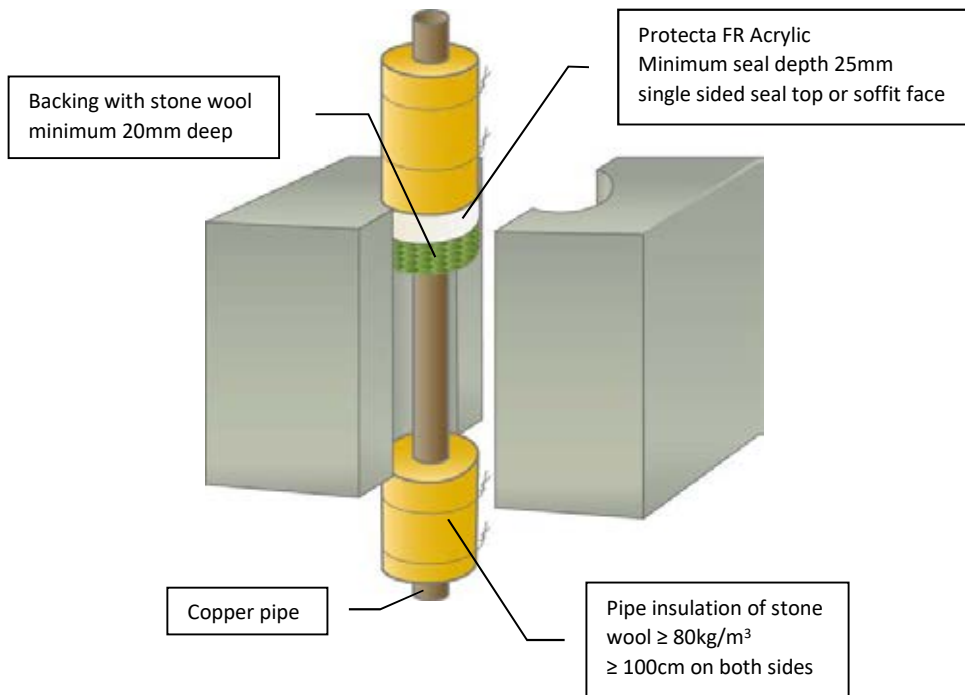
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Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Acrylic Stone wool
<b>Application</b>	Fire stopping of copper pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>
<b>Fire &amp; Sound classification</b>	
Copper pipe ≤ Ø12mm with ≥ 20mm thick pipe insulation and annular ring width 10mm EI 240 C/U & E 240 C/U	
Copper pipe ≤ Ø54mm with ≥ 20mm thick pipe insulation in maximum aperture 300x300mm EI 60 C/U & E 90 C/U	
Copper pipe ≤ Ø54mm with ≥ 20mm thick pipe insulation and annular ring width 10mm EI 180 C/U & E 240 C/U	
Sound reduction (seal only)	Rw 62dB
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
<b>A4</b>	4/3/15
Scale:	Drawn by:
<b>NTS</b>	K.B

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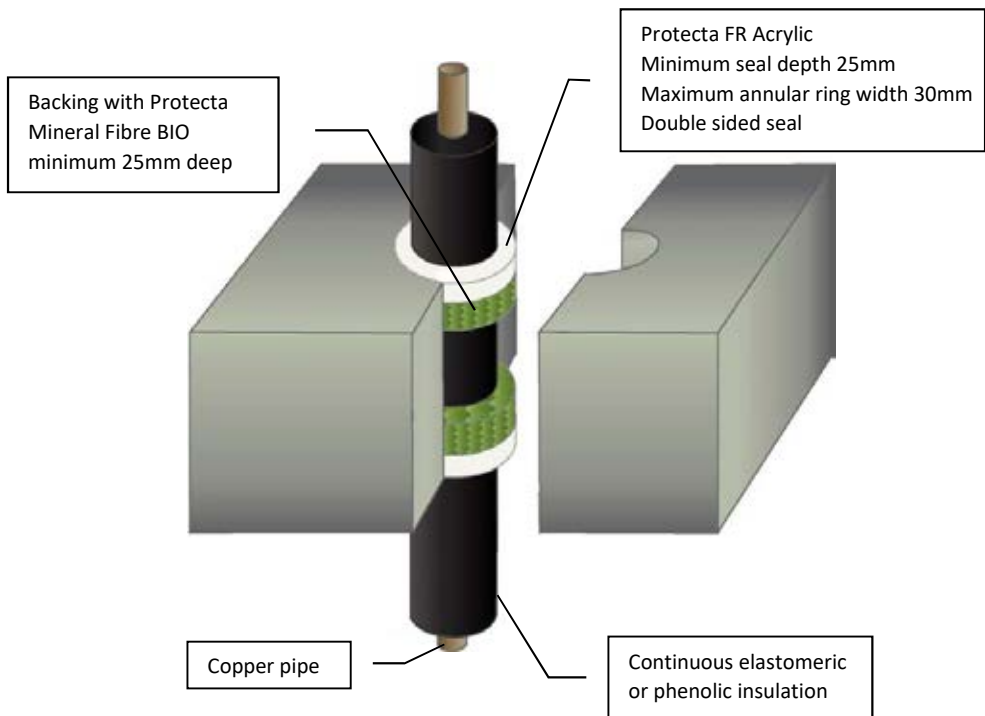
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Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Acrylic Stone wool
<b>Application</b>	Fire stopping of copper pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>
<b>Fire &amp; Sound classification</b>	
Copper pipe ≤ Ø54mm with ≥ 20mm thick pipe insulation in maximum aperture 300x300mm or 100x1000mm	
EI 120 C/U & E 120 C/U	
Sound reduction (seal only)	
Rw 62dB	
	
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Client:

Job Title:

**Products** Protecta FR Acrylic  
Protecta Mineral Fibre BIO

**Application** Fire stopping of copper pipes in rigid floors

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m³

**Fire & Sound classification**

Copper pipe ≤ Ø12mm with 9mm thick pipe insulation	EI 180 C/C & E 240 C/C
Copper pipe ≤ Ø54mm with 9-13mm thick pipe insulation	EI 120 C/C & E 180 C/C
Copper pipe ≤ Ø54mm with 14-25mm thick pipe insulation	EI 60 C/C & E 90 C/C
Sound reduction (seal only)	Rw 62dB

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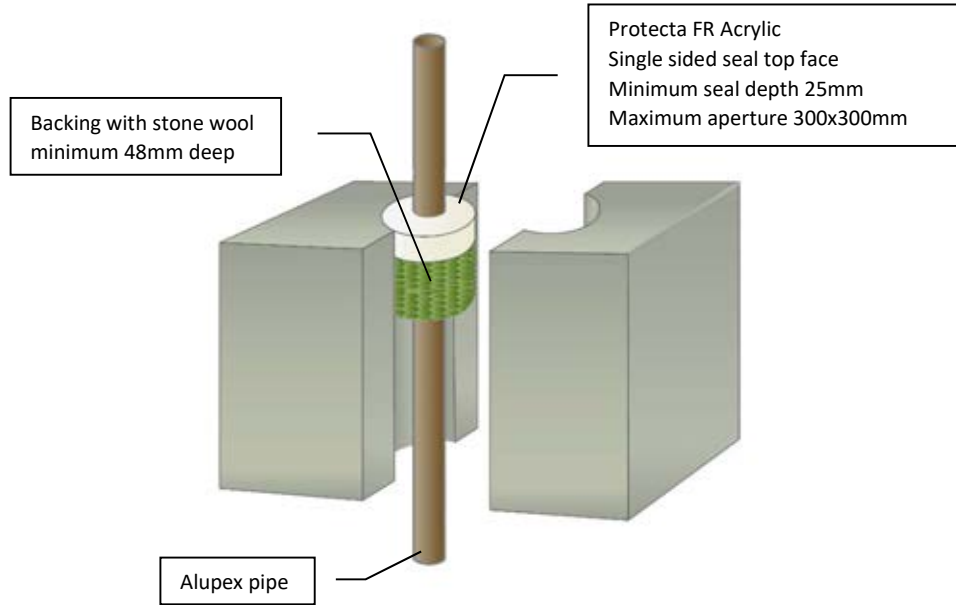
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Client:

Job Title:

<b>Products</b>	Protecta FR Acrylic Stone wool
<b>Application</b>	Fire stopping of alupex pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>

<b>Fire &amp; Sound classification</b>	
Alupex pipe ≤ Ø20mm	EI 120 C/C & E 120 C/C
Alupex pipe ≤ Ø75mm	EI 90 C/C & E 120 C/C
Sound reduction (seal only)	Rw 62 dB



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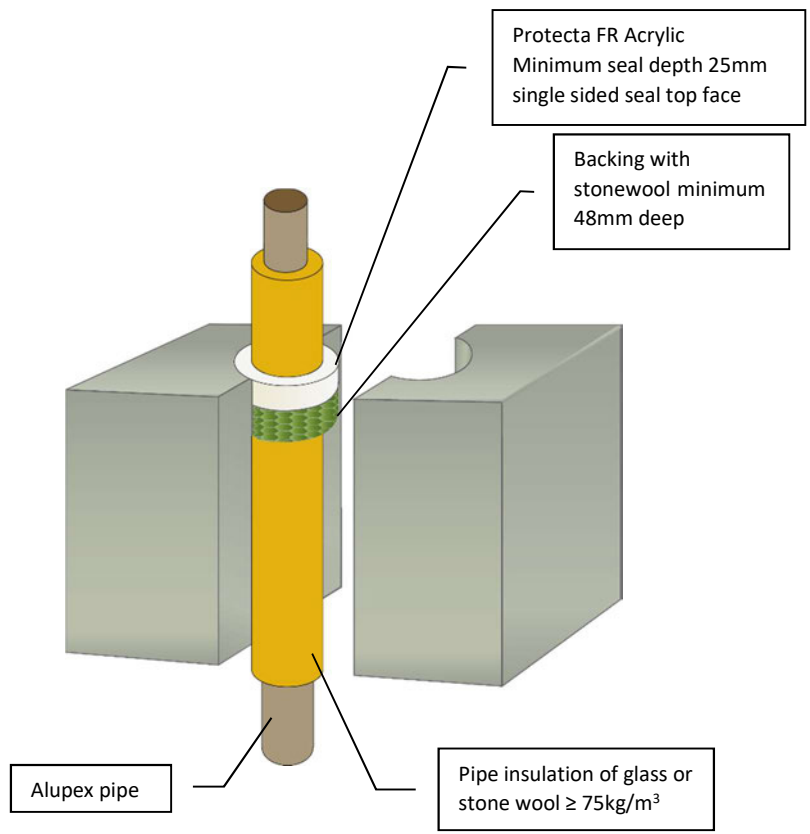
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Client:

Job Title:

<b>Products</b>	Protecta FR Acrylic Stonewool
<b>Application</b>	Fire stopping of alupex pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>

<b>Fire &amp; Sound classification</b>	
Alupex pipe ≤ Ø75mm with 20-50mm thick continuous pipe insulation in maximum aperture 300x300mm	
EI 120 C/C & E 180 C/C	
Sound reduction (seal only)	Rw 62dB

**Protecta®**

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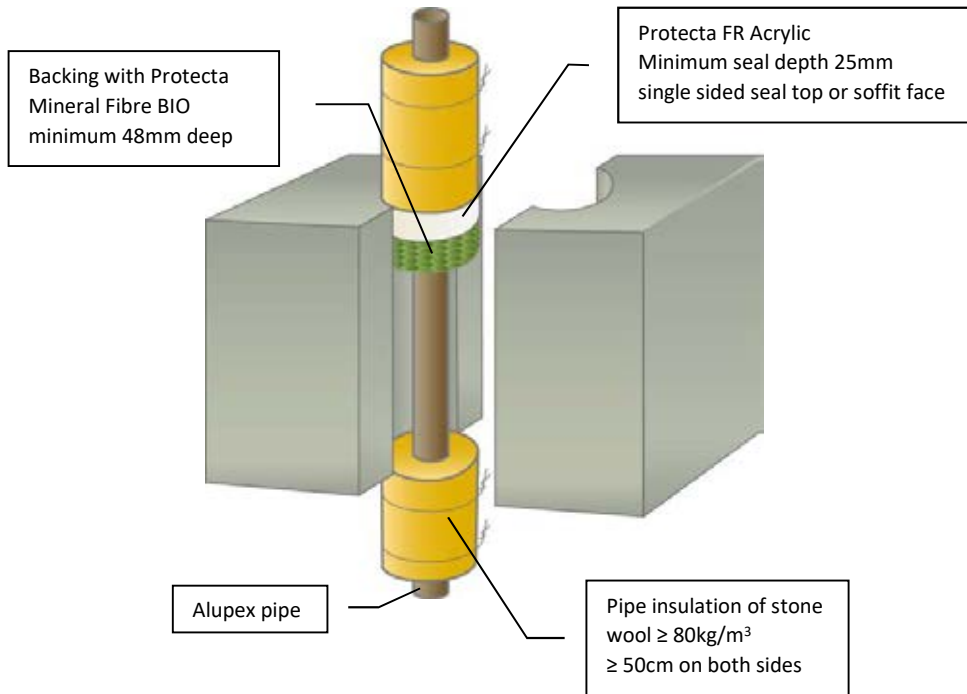
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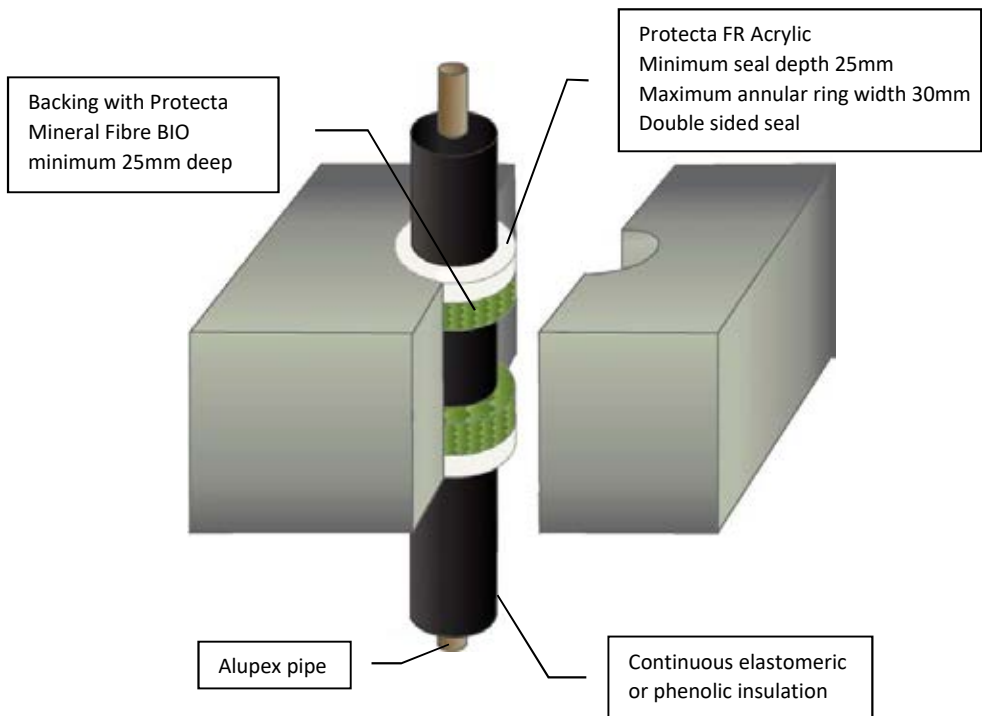
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Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Acrylic Protecta Mineral Fibre BIO
<b>Application</b>	Fire stopping of alupex pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>
<b>Fire &amp; Sound classification</b>	
Alupex pipe ≤ Ø75mm with ≥ 20mm thick pipe insulation in maximum aperture 300x300mm EI 240 C/C & E 240 C/C	
Sound reduction (seal only) Rw 62dB	
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
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Client:

Job Title:

**Products** Protecta FR Acrylic  
Protecta Mineral Fibre BIO

**Application** Fire stopping of alupex pipes in rigid floors

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>

**Fire & Sound classification**

Alupex pipe ≤ Ø16mm with 9mm thick pipe insulation EI 180 C/C & E 180 C/C

Alupex pipe ≤ Ø75mm with 9-13mm thick pipe insulation EI 60 C/C & E 120 C/C

Alupex pipe ≤ Ø75mm with 14-25mm thick pipe insulation EI 60 C/C & E 60 C/C

Sound reduction (seal only) Rw 62dB

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Signed and approved:

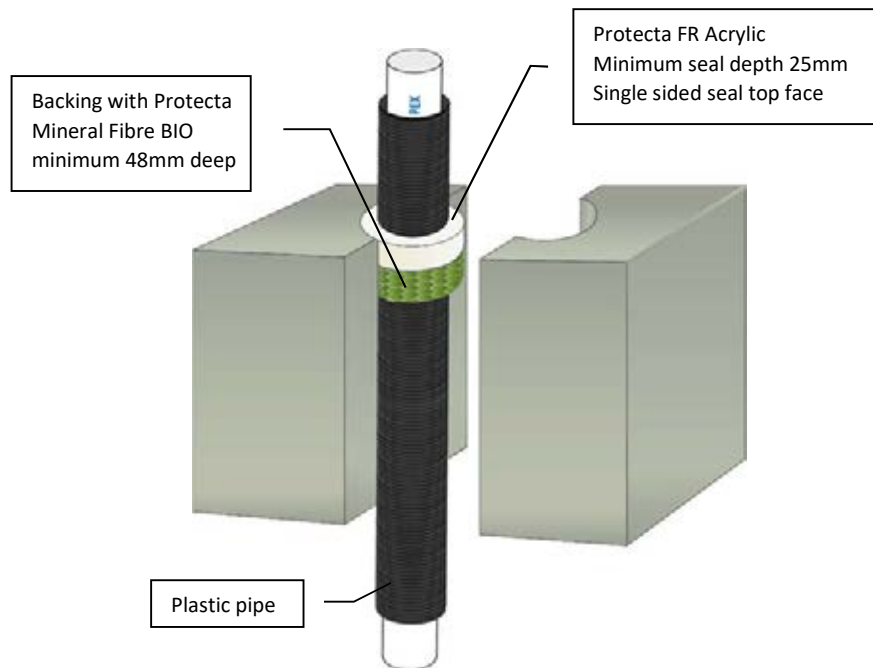
Sheet size: **A4** Drawn date & no: 10/8/19

Scale: **NTS** Drawn by: **K.B**



Installation Instructions

1. Before installing Protecta® FR Acrylic ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Where Protecta® FR Acrylic is to be installed against surfaces that cannot tolerate direct contact; appropriate surface preparation should be made (contact Polyseam for guidance in these cases). For paints sensitive to sealing compounds, priming with a PVA primer is recommended.
3. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
4. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
5. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
6. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

<b>Products</b>	Protecta FR Acrylic Stone wool
<b>Application</b>	Fire stopping of PEX plastic pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>

<b>Fire &amp; Sound classification</b>	
PEX pipe-in-pipe ≤ Ø25mm and maximum annular ring width 30mm	
EI 90 C/C & E 90 C/C	
Sound reduction (seal only)	
Rw 62dB	

Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: post.uk@polyseam.com



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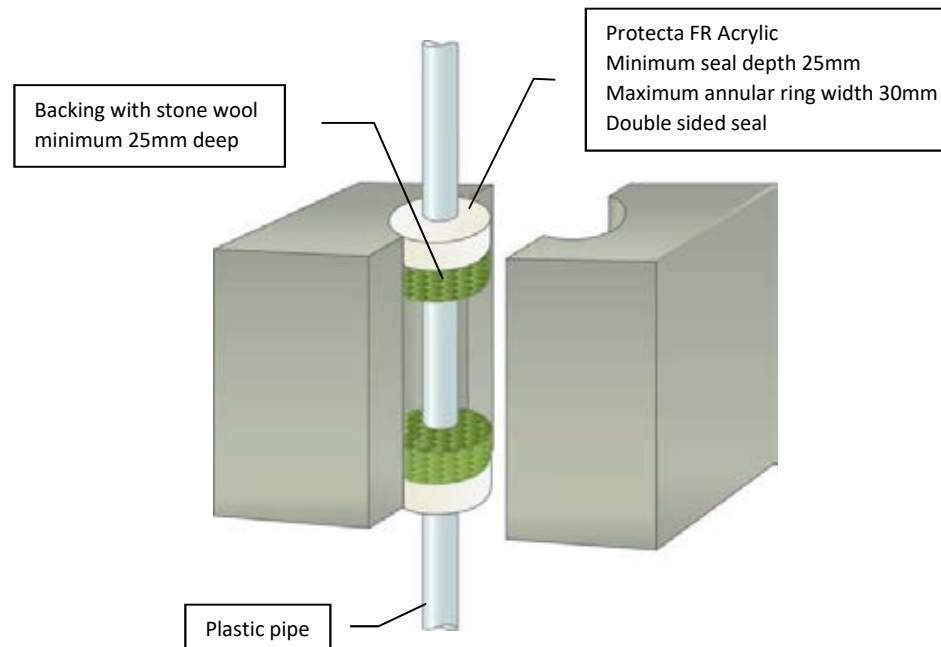
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Sheet size: <b>A4</b>	Drawn date & no: 4/3/15
Scale: <b>NTS</b>	Drawn by: K.B

Installation Instructions

1. Before installing Protecta® FR Acrylic ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Where Protecta® FR Acrylic is to be installed against surfaces that cannot tolerate direct contact; appropriate surface preparation should be made (contact Polyseam for guidance in these cases). For paints sensitive to sealing compounds, priming with a PVA primer is recommended.
3. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
4. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
5. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
6. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of plastic pipes in rigid floors

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>

**Fire & Sound classification**

PVC-U or PVC-C pipe ≤ Ø50mm with wall thickness 1.6-3.7mm EI 240 U/C & E 240 U/C

PE, ABS or SAN+PVC pipe ≤ Ø40mm with wall thickness 2.0-2.4mm EI 240 U/C & E 240 U/C

PP pipe ≤ Ø 12mm with wall thickness 1.2mm EI 240 U/C & E 240 U/C

PP pipe ≤ Ø75mm with wall thickness 1.2-6.8mm EI 90 U/C & E 90 U/C

Sound reduction (seal only) Rw 62dB



ETA 18/0904

Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
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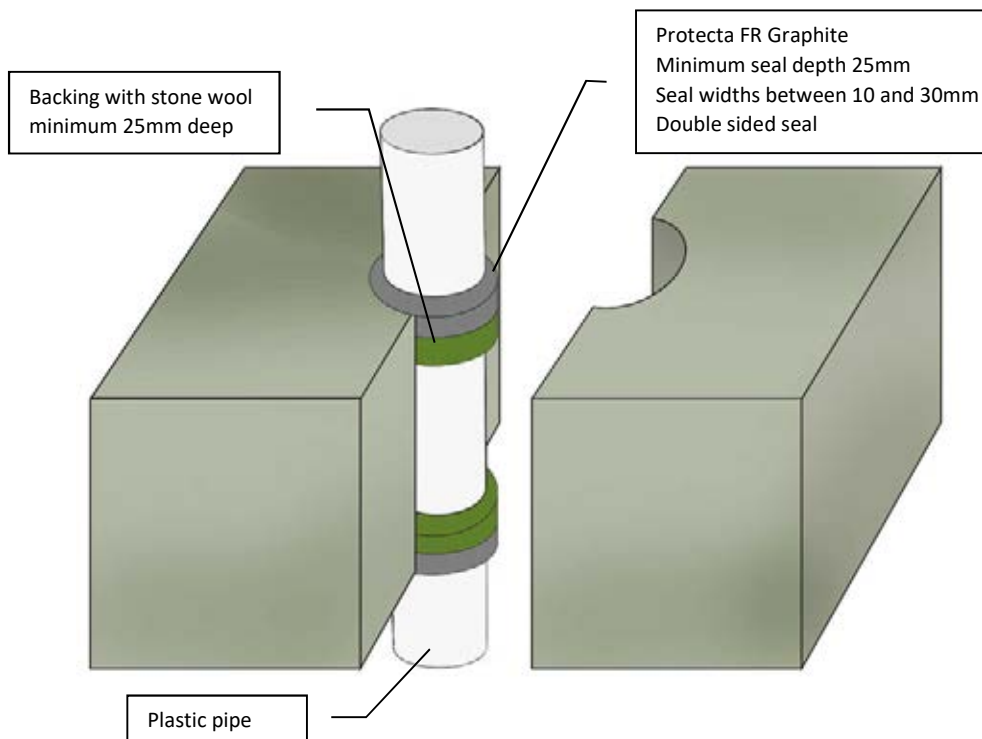
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Signed and approved:

Sheet size:	Drawn date & no:
<b>A4</b>	10/8/19
<b>NTS</b>	K.B

Installation Instructions

1. Before installing Protecta® FR Graphite ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
3. Fill the gap or joint with Protecta® FR Graphite to the required depth.
4. Apply the sealant generously avoiding air bubbles. Finish the bead with a moist spatula or pallet knife. Avoid excessive tooling/smoothing as this may make the seal surface wet and soft.
5. Protecta® FR Graphite can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Graphite  
Stone wool  
**Application** Fire stopping of plastic pipes in rigid floors  
**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>

**Fire & Sound classification**  
PVC-U or PVC-C pipe ≤ 40 mm diameter with wall thickness 1.8-3.7mm EI 240 U/U  
PVC-U or PVC-C pipe ≤ 110 mm diameter with wall thickness 1.8-6.6mm EI 90 C/U  
PE, ABS or SAN+PVC pipe ≤ 40 mm diameter with wall thickness 2.4-3.7mm EI 60 U/U & EI 240 U/C  
PE, ABS or SAN+PVC pipe ≤ 110 mm diameter with wall thickness 2.4-4.2mm EI 60 U/C  
PE, ABS or SAN+PVC pipe ≤ 110 mm diameter with wall thickness 4.3-10.0mm EI 90 U/C  
PE, ABS or SAN+PVC pipe ≤ 110 mm diameter with wall thickness 10.0mm EI 60 U/U  
PP pipe ≤ 40 mm diameter with wall thickness 1.8mm EI 120 C/C  
PP pipe ≤ 110 mm diameter with wall thickness 1.8-6.3mm EI 30 U/C  
Sound reduction (seal only) 53dB



ETA 18/0626

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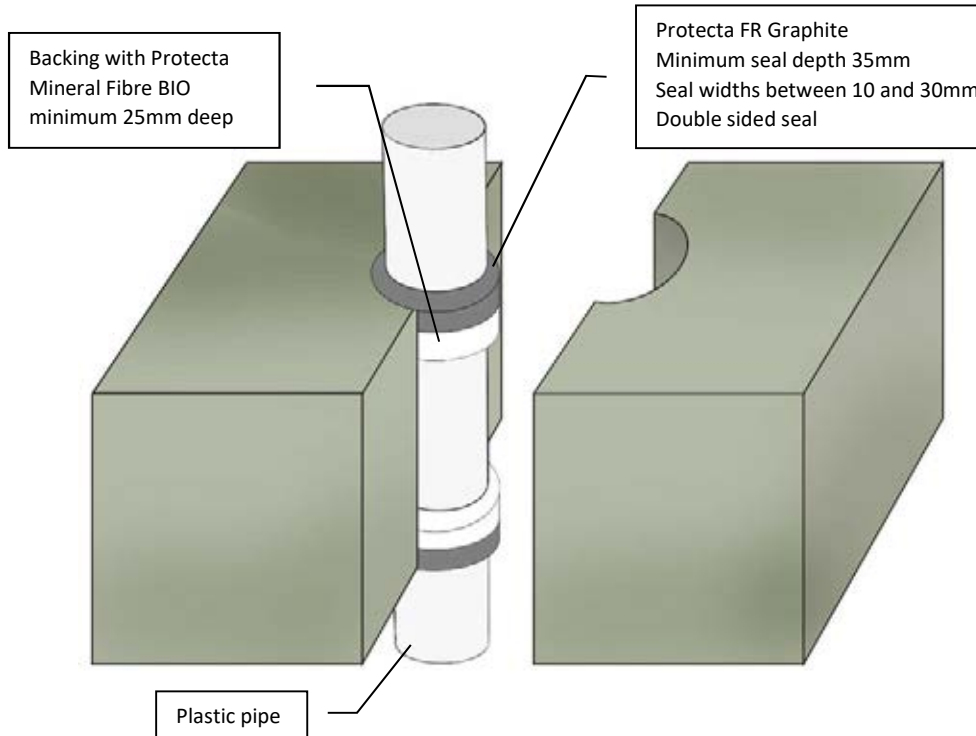
  
Polyseam Ltd, 15 St Andrews Road,  
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Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

Sheet size: <b>A4</b>	Drawn date & no: 11/11/18
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Scale: <b>NTS</b>	Drawn by: K.B
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Installation Instructions

1. Before installing Protecta® FR Graphite ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
3. Fill the gap or joint with Protecta® FR Graphite to the required depth.
4. Apply the sealant generously avoiding air bubbles. Finish the bead with a moist spatula or pallet knife. Avoid excessive tooling/smoothing as this may make the seal surface wet and soft.
5. Protecta® FR Graphite can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Graphite  
Stone wool

**Application** Fire stopping of plastic pipes in rigid floors

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>

**Fire & Sound classification**  
 PVC-U or PVC-C pipe ≤ 160 mm diameter with wall thickness 4.0-9.5mm EI 60 U/C  
 PE, ABS or SAN+PVC pipe ≤ 160 mm diameter with wall thickness 4.9-14.6mm EI 30 U/C  
 PE, ABS or SAN+PVC pipe ≤ 160 mm diameter with wall thickness 14.6mm EI 60 U/C  
 Sound reduction (seal only) 53dB

Polyseam Ltd, 15 St Andrews Road,  
 Huddersfield, West Yorkshire, HD1 6SB  
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ETA 18/0626

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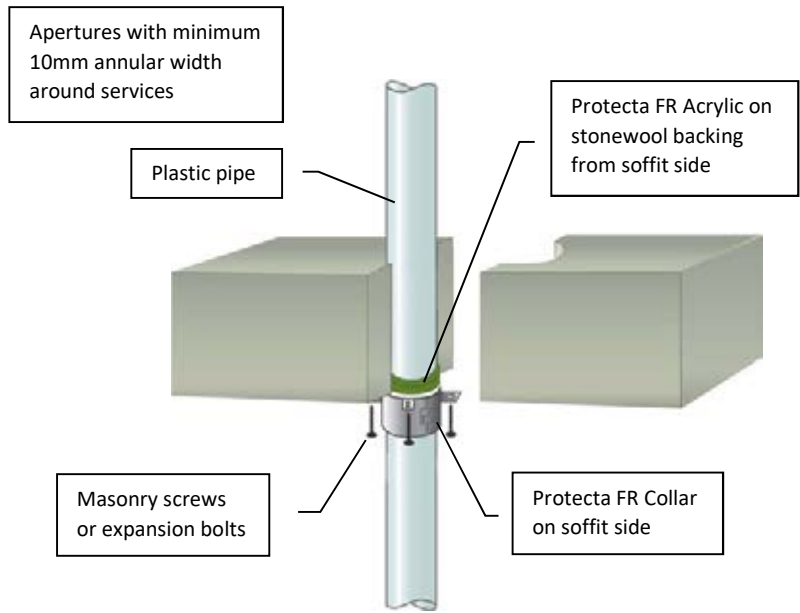
Signed and approved:

Sheet size: **A4** Drawn date & no: 11/11/18

Scale: **NTS** Drawn by: K.B

**Installation Instructions**

1. Before fitting the collar ensure that the gaps between the pipe and the separating element are sealed with minimum 10mm deep Protecta FR Acrylic on 40mm deep stone wool backing.
2. Place a suitable collar around the pipe and ensure that the collar shell and fixing lugs are positioned tightly to the surface of the floor, so that the fixings can be inserted fully.
3. Where the surface is uneven, apply a sealing bead of Protecta® FR Acrylic between the floor and the collar shell.
4. Attach the collar with with  $\geq \varnothing 4 \times 40$ mm long masonry screws or expansion bolts.



Services	Min. Collar Height	Classification
≤ Ø50mm PVC-U & PVC-C	30mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 90)
≤ Ø90mm PVC-U & PVC-C	50mm	EI 120 C/C, EI 120 U/C, EI 60 C/U, EI 60 U/U
≤ Ø110mm PVC-U & PVC-C	30mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U
≤ Ø110mm PVC-U & PVC-C	50mm	EI 120 C/C, EI 90 U/C (E 120), EI 60 C/U
≤ Ø160mm PVC-U & PVC-C	60mm	EI 120 C/C, EI 120 U/C, EI 60 C/U, EI 60 U/U
≤ Ø200mm PVC-U & PVC-C	60mm	EI 60 C/C (E 120)
≤ Ø315mm PVC-U & PVC-C	75mm	EI 60 C/C
≤ Ø400mm PVC-U & PVC-C	100mm	EI 60 C/C
≤ Ø55mm PE, ABS & SAN+PVC	30mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U
≤ Ø50mm PE, ABS & SAN+PVC	50mm	EI 240 C/C, EI 240 U/C, EI 60 C/U, EI 60 U/U
≤ Ø110mm PE, ABS & SAN+PVC	30mm	EI 60 C/C, EI 60 U/C
≤ Ø110mm PE, ABS & SAN+PVC	50mm	EI 120 C/C, EI 120 U/C, EI 60 C/U, EI 60 U/U
≤ Ø160mm PE, ABS & SAN+PVC	60mm	EI 120 C/C, EI 120 U/C, EI 60 C/U, EI 60 U/U
≤ Ø200mm PE, ABS & SAN+PVC	60mm	EI 120 C/C (E 240)
≤ Ø250mm PE, ABS & SAN+PVC	75mm	EI 240 C/C
Ø315x18.7mm PE, ABS & SAN+PVC	75mm	EI 240 C/C
Ø400x36.3mm PE, ABS & SAN+PVC	100mm	EI 90 C/C

Services	Min. Collar Height	Classification
≤ Ø50mm PP	30mm	EI 120 C/C, EI 120 U/C, EI 120 C/U, EI 120 U/U
≤ Ø110mm PP	50mm	EI 120 C/C, EI 120 U/C, EI 60 C/U, EI 60 U/U
≤ Ø140mm PP	60mm	EI 120 C/C, EI 120 U/C, EI 60 C/U, EI 60 U/U
≤ Ø160mm PP	60mm	EI 180 C/C, EI 180 U/C, EI 60 C/U, EI 60 U/U
≤ Ø200mm PP	60mm	EI 120 C/C
≤ Ø250mm PP	75mm	EI 60 C/C
Ø315x28.6mm PP	75mm	EI 60 C/C
≤ Ø400mm PP	100mm	EI 30 C/C



Client:

Job Title:

**Products** Protecta FR Collar  
Stonewool

**Application** Fire stopping of plastic pipes in rigid floors

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>

**Fire & Sound classification**

Fire classifications in tables on the left. For full specifications, please refer to the Installation Instructions.

Sound reduction (seal only)  
  
Rw 58dB

**Protecta**  
Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: post.uk@polyseam.com

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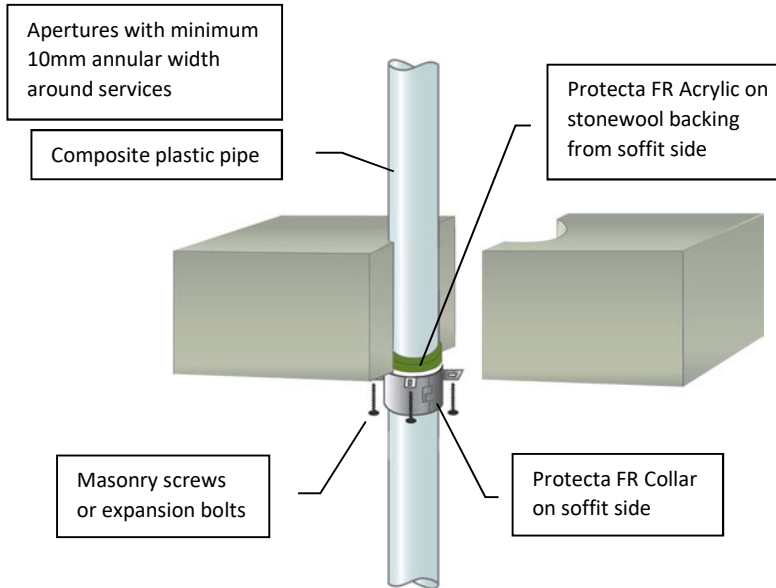
Signed and approved:

Sheet size: **A4**      Drawn date & no: **20/8/19**

Scale: **NTS**      Drawn by: **K.B**

### Installation Instructions

1. Before fitting the collar ensure that the gaps between the pipe and the separating element are sealed with minimum 10mm deep Protecta FR Acrylic on 40mm deep stone wool backing.
2. Place a suitable collar around the pipe and ensure that the collar shell and fixing lugs are positioned tightly to the surface of the floor, so that the fixings can be inserted fully.
3. Where the surface is uneven, apply a sealing bead of Protecta® FR Acrylic between the floor and the collar shell.
4. Attach the collar with with  $\geq \text{Ø}4 \times 40\text{mm}$  long masonry screws or expansion bolts.



Services	Minimum Collar Height	Classification
≤ Ø32mm Aquatherm Green SDR9	30mm	EI 240 C/C
≤ Ø50mm Aquatherm Green SDR9	50mm	EI 240 C/C
≤ Ø110mm Aquatherm Green SDR9	50mm	EI 120 C/C
≤ Ø50mm BluePower	50mm	EI 180 C/C, EI 180 U/C, EI 180 C/U, EI 180 U/U
≤ Ø110mm BluePower	50mm	EI 180 C/C, EI 180 U/C, EI 180 C/U
Ø125mm BluePower	60mm	EI 180 C/C, EI 180 U/C, EI 180 C/U
Ø160mm BluePower	60mm	EI 240 C/C, EI 240 U/C, EI 240 C/U
≤ Ø50mm Geberit Silent-PP	50mm	EI 240 C/C, EI 240 U/C, EI 240 C/U, EI 240 U/U
≤ Ø110mm Geberit Silent-PP	50mm	EI 180 C/C, EI 180 U/C, EI 180 C/U
≤ Ø50mm Polo-Kal NG pipes	50mm	EI 240 C/C, EI 240 U/C, EI 240 C/U, EI 240 U/U
≤ Ø110mm Polo-Kal NG pipes	50mm	EI 240 C/C, EI 240 U/C, EI 240 C/U
Ø125mm Polo-Kal NG pipes	60mm	EI 240 C/C, EI 240 U/C
Ø160mm Polo-Kal NG pipes	60mm	EI 240 C/C, EI 240 U/C (E 240 C/U)
≤ Ø50mm Rehau Raupiano Plus	50mm	EI 240 C/C, EI 240 U/C, EI 240 C/U, EI 240 U/U
≤ Ø110mm Rehau Raupiano Plus	50mm	EI 120 C/C, EI 120 U/C, EI 120 C/U
Ø125mm Rehau Raupiano Plus	60mm	EI 180 C/C, EI 180 U/C, EI 180 C/U
Ø160mm Rehau Raupiano Plus	60mm	EI 240 C/C, EI 240 U/C (E 240 C/U)
≤ Ø50mm Wavin SiTech	50mm	EI 240 C/C, EI 240 U/C, EI 240 C/U, EI 240 U/U
≤ Ø110mm Wavin SiTech	50mm	EI 180 C/C, EI 180 U/C, EI 180 C/U



ETA 18/0854

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Signed and approved:

Client:

Job Title:

<b>Products</b>	Protecta FR Collar Stonewool
<b>Application</b>	Fire stopping of composite plastic pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>

### Fire & Sound classification

Fire classifications in tables on the left. For full specifications, please refer to the Installation Instructions.

Sound reduction (seal only)

Rw 58dB



Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB

Tel: +44 (0) 148 4421036

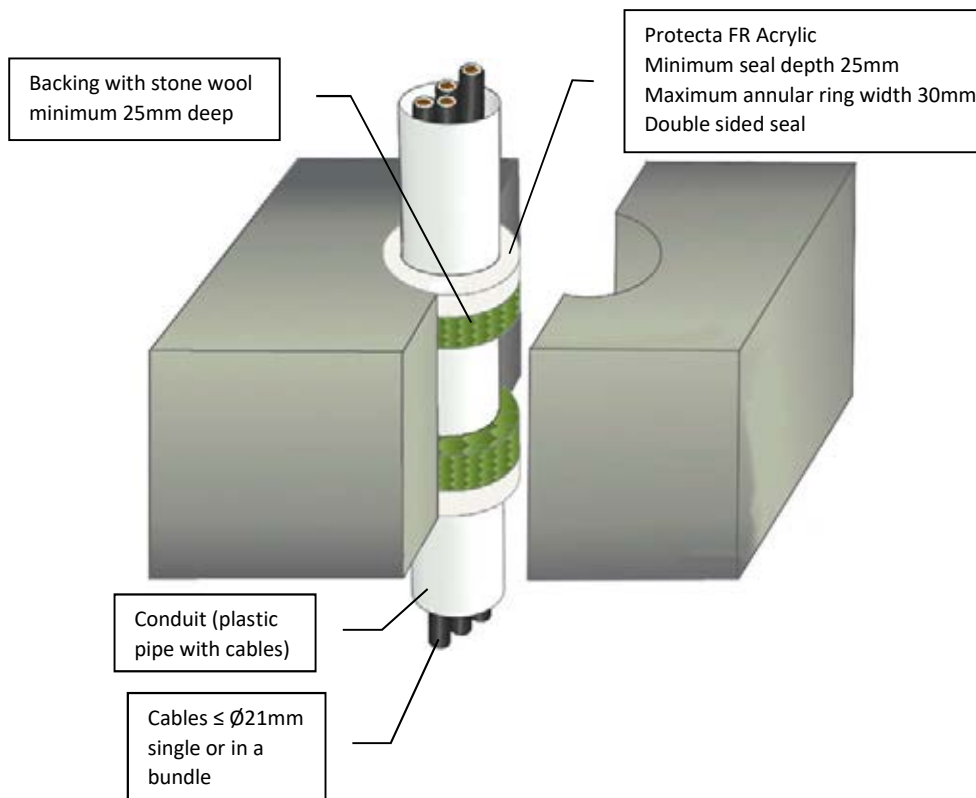
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

Sheet size:	Drawn date & no:
<b>A4</b>	20/8/19

Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Before installing Protecta® FR Acrylic ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Where Protecta® FR Acrylic is to be installed against surfaces that cannot tolerate direct contact; appropriate surface preparation should be made (contact Polyseam for guidance in these cases). For paints sensitive to sealing compounds, priming with a PVA primer is recommended.
3. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
4. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
5. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
6. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.




ETA 18/0904

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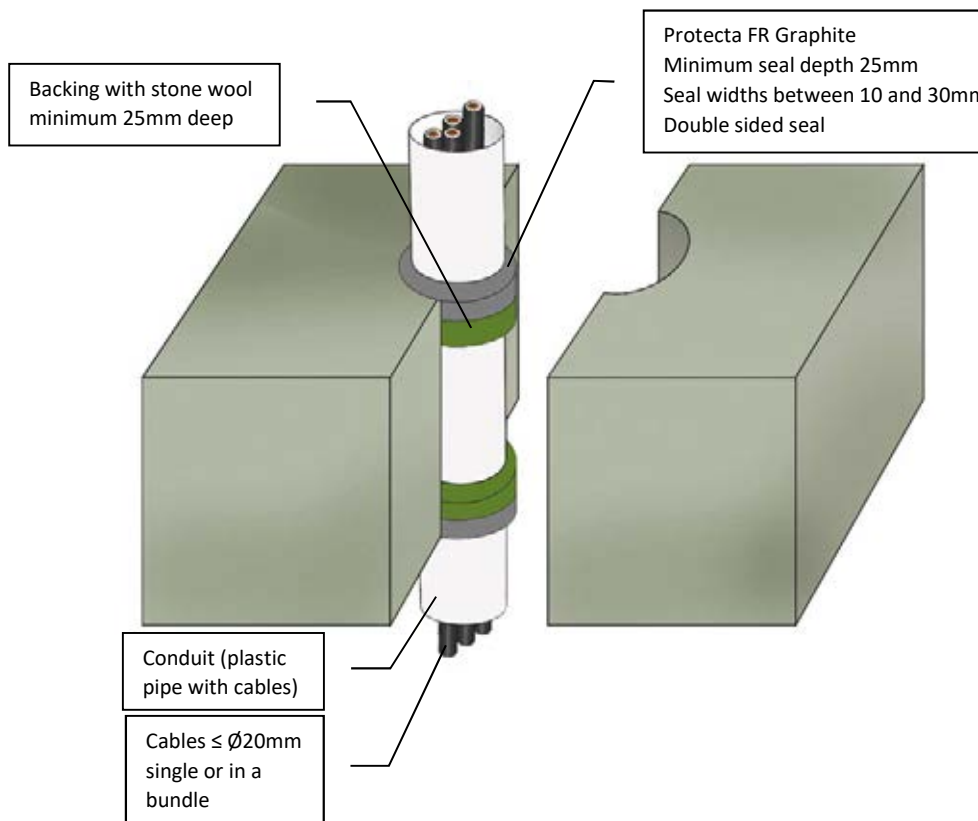
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Acrylic Stone wool
<b>Application</b>	Fire stopping of conduits in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>
<b>Fire &amp; Sound classification</b>	
PVC-U & PVC-C conduit/pipe $\leq \text{Ø}40\text{mm}$ with wall thickness 1.6 – 3.7mm EI 240 U/C & E 240 U/C	
PE, ABS & SAN+PVC conduit/pipe $\leq \text{Ø}40\text{mm}$ with wall thickness 2.0 – 2.4mm EI 180 U/C & E 180 U/C	
PP conduit/pipe $\leq \text{Ø}40\text{mm}$ with wall thickness 1.2 – 1.8mm EI 180 U/C & E 180 U/C	
Sound reduction (seal only)	Rw 62dB
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
<b>A4</b>	9/4/18
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Before installing Protecta® FR Graphite ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
3. Fill the gap or joint with Protecta® FR Graphite to the required depth.
4. Apply the sealant generously avoiding air bubbles. Finish the bead with a moist spatula or pallet knife. Avoid excessive tooling/smoothing as this may make the seal surface wet and soft.
5. Protecta® FR Graphite can be over-painted with most emulsion or alkyd (gloss) paints.



ETA 18/0626

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Signed and approved:

Client:

Job Title:

**Products** Protecta FR Graphite  
Stone wool

**Application** Fire stopping of conduits in rigid floors

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>

**Fire & Sound classification**

PE, ABS or SAN+PVC conduit/pipe ≤ Ø110mm with wall thickness 2.4 - 10.0mm	EI 60 U/C
PP conduit/pipe ≤ Ø110mm with wall thickness 2.7mm	EI 90 U/C
PVC-U or PVC-C conduit/pipe ≤ Ø110mm with wall thickness 1.8-6.6mm	EI 90 U/C
Sound reduction (seal only)	Rw 53dB

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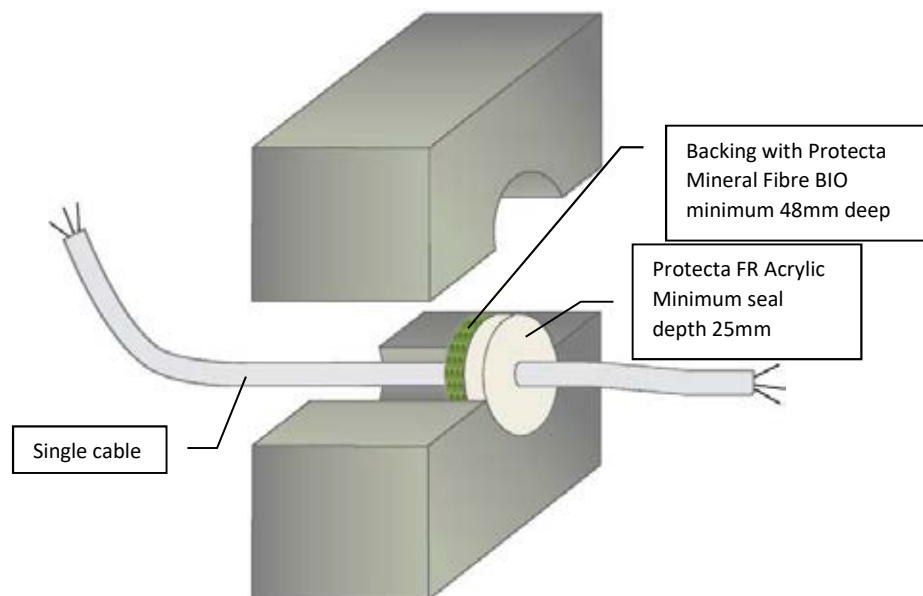
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<b>A4</b>	11/11/18

Scale:	Drawn by:
<b>NTS</b>	K.B



Installation Instructions

1. Before installing Protecta® FR Acrylic ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Where Protecta® FR Acrylic is to be installed against surfaces that cannot tolerate direct contact; appropriate surface preparation should be made (contact Polyseam for guidance in these cases). For paints sensitive to sealing compounds, priming with a PVA primer is recommended.
3. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
4. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
5. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
6. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Protecta Mineral Fibre BIO

**Application** Fire stopping of cables in rigid walls

**Construction** Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**

Cable  $\leq \text{Ø}21\text{mm}$  single sided seal in maximum aperture 300x300mm EI 60 & E 240

Cable  $\leq \text{Ø}21\text{mm}$  single sided seal in maximum aperture  $\text{Ø}87\text{mm}$  EI 90 & E 240

Cable  $\leq \text{Ø}21\text{mm}$  single sided seal in maximum aperture 35x35mm or  $\text{Ø}36\text{mm}$  EI 120 & E 240

Sound reduction (seal only) Rw 62 dB

**Protecta®**  
Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: post.uk@polyseam.com



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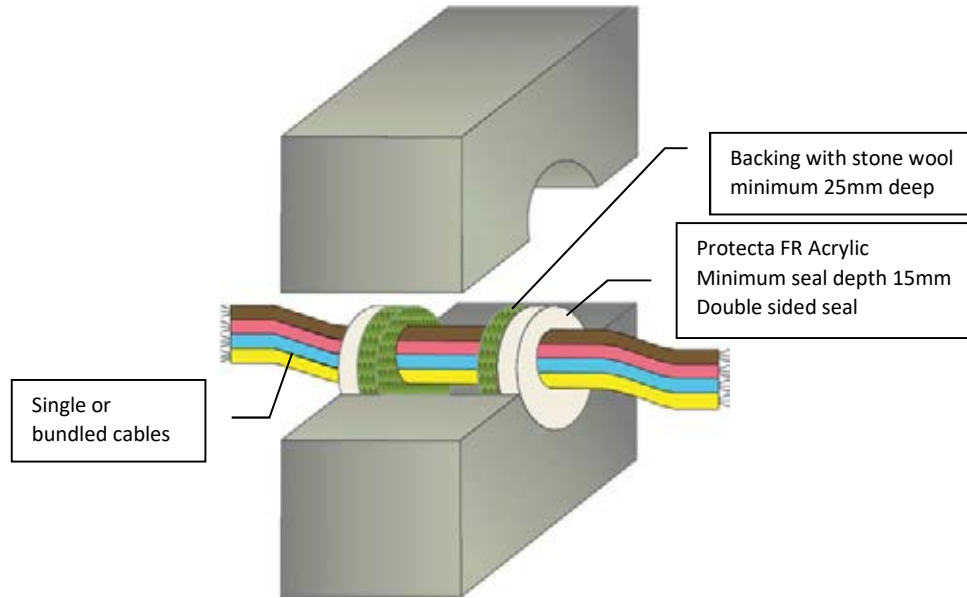
Signed and approved:

Sheet size: **A4** Drawn date & no: 7/3/15

Scale: **NTS** Drawn by: **K.B**

Installation Instructions

1. Before installing Protecta® FR Acrylic ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
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4. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
5. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
6. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of cables in rigid walls

**Construction** Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**

Cables  $\leq \varnothing 21\text{mm}$  single or in a bundle  
 $\leq \varnothing 100\text{mm}$  in maximum aperture 300x300mm  
 EI 120 & E 240

Cables  $\leq \varnothing 80\text{mm}$  single or in a bundle  
 $\leq \varnothing 100\text{mm}$  in maximum aperture 300x300mm  
 EI 60 & E 120

Sound reduction (seal only) Rw 62 dB

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 Huddersfield, West Yorkshire, HD1 6SB  
 Tel: +44 (0) 148 4421036  
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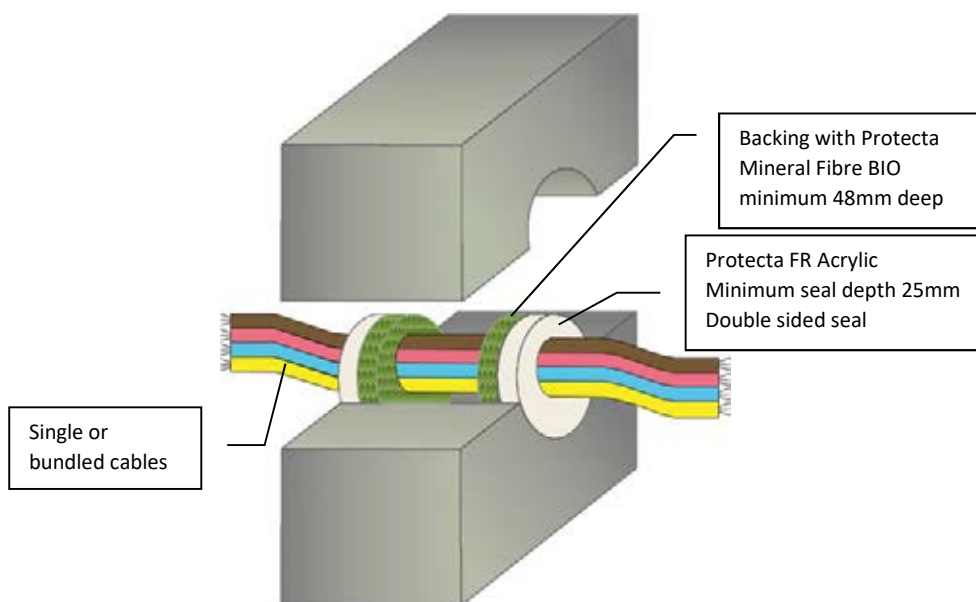
Signed and approved:

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Client:

Job Title:

**Products** Protecta FR Acrylic  
Protecta Mineral Fibre BIO

**Application** Fire stopping of cables in rigid walls

**Construction** Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**

Cables  $\leq \varnothing 21\text{mm}$  single or in a bundle  
 $\leq \varnothing 100\text{mm}$  in maximum aperture 300x300mm  
 EI 240 & E 240

Cables  $\leq \varnothing 80\text{mm}$  single or in a bundle  
 $\leq \varnothing 100\text{mm}$  in maximum aperture 300x300mm  
 EI 60 & E 240

Sound reduction (seal only) Rw 62 dB

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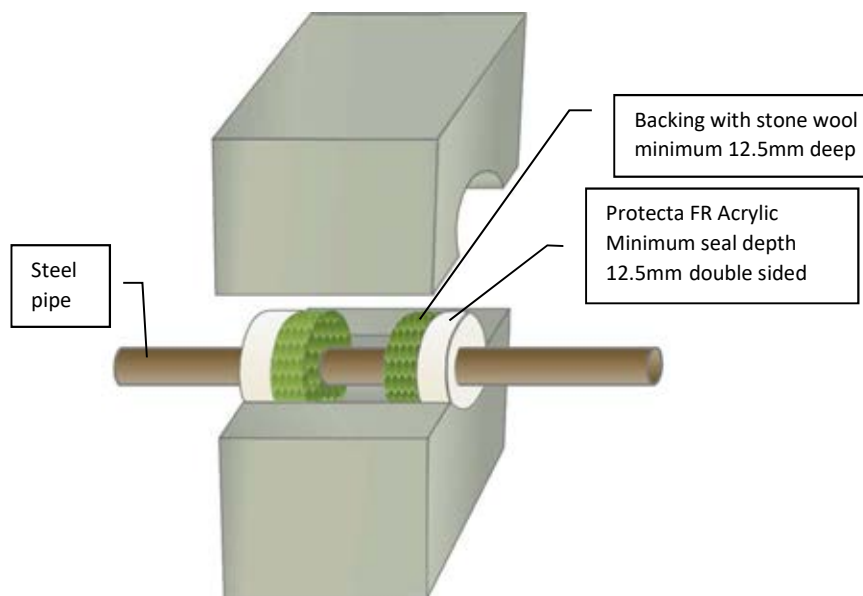
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7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of steel pipes in rigid walls

**Construction** Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**

Steel pipe  $\leq \text{Ø}30\text{mm}$  without pipe insulation in maximum aperture 300x300mm

EI 90 C/C & E 90 C/C

Sound reduction (seal only)

Rw 62dB

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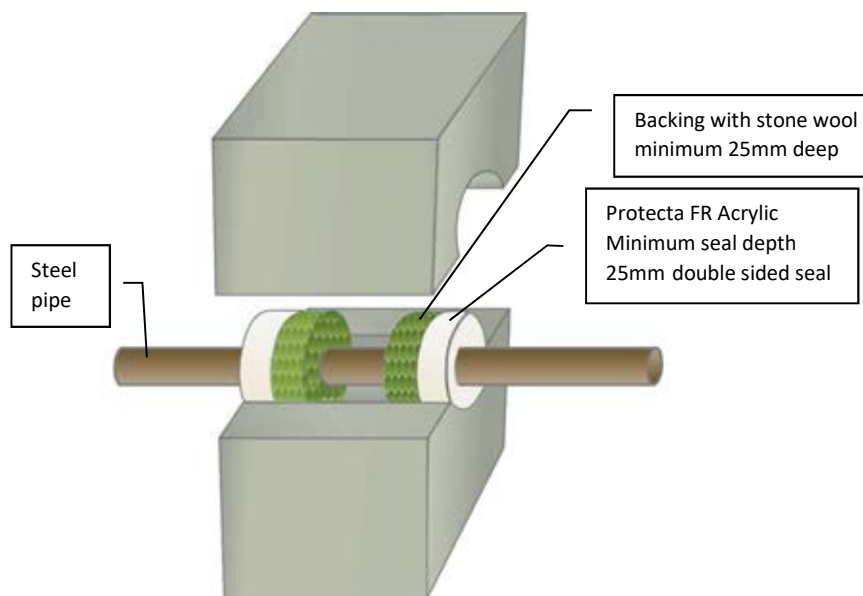
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Sheet size: **A4**      Drawn date & no: **8/4/18**

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Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of steel pipes in rigid walls

**Construction** Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**

Steel pipe  $\varnothing 22 - \varnothing 30\text{mm}$  without pipe insulation in maximum aperture  $300 \times 300\text{mm}$

EI 120 C/C & E 120 C/C

Sound reduction (seal only)

Rw 62dB

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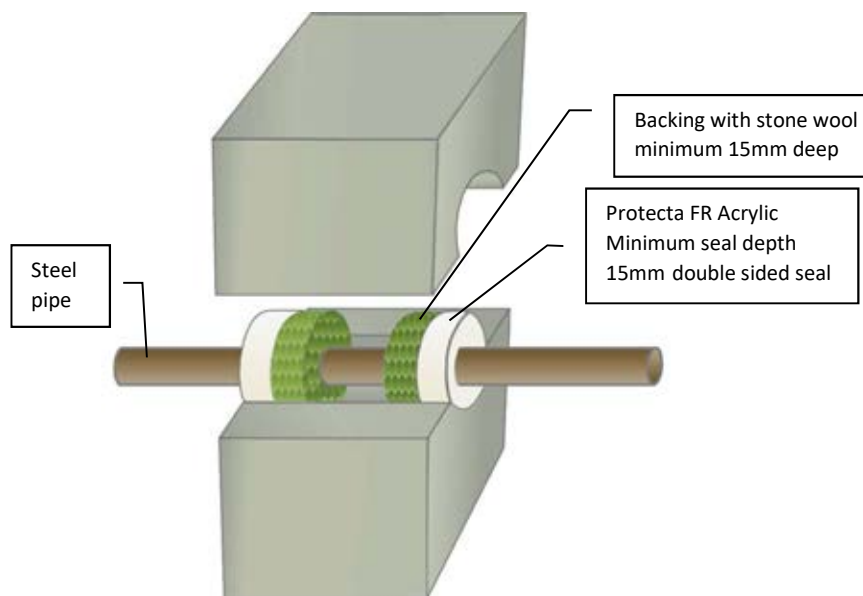
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Sheet size: **A4**      Drawn date & no: **8/4/18**

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7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of steel pipes in rigid walls

**Construction** Minimum wall thickness of 120 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**

Steel pipe  $\leq \text{Ø}324\text{mm}$  without pipe insulation in maximum aperture  $300 \times 300\text{mm}$  or  $\text{Ø}344\text{mm}$

E 120 C/U

Sound reduction (seal only)

Rw 62dB

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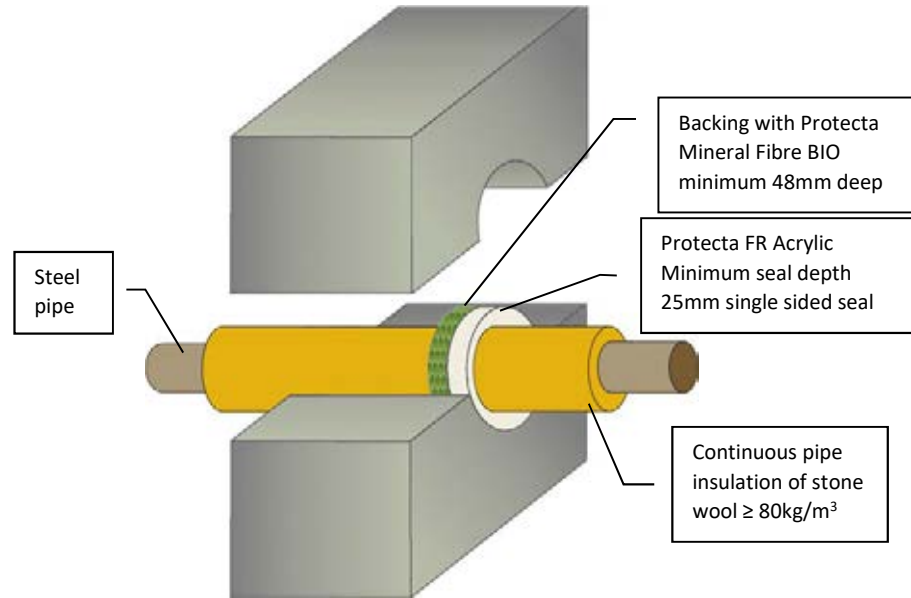
Signed and approved:

Sheet size: **A4**      Drawn date & no: 13/8/19

Scale: **NTS**      Drawn by: K.B

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6. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Protecta Mineral Fibre BIO

**Application** Fire stopping of steel pipes in rigid walls

**Construction** Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**

Steel pipe  $\leq \text{Ø}40\text{mm}$  with 20mm thick pipe insulation in maximum aperture 300x300mm or  $\text{Ø}504\text{mm}$   
EI 240 C/U & E 240 C/U

Steel pipe  $\leq \text{Ø}324\text{mm}$  with 30-80mm thick pipe insulation in maximum aperture 300x300mm or  $\text{Ø}504\text{mm}$   
EI 180 C/U & E 180 C/U

Sound reduction (seal only)  
Rw 62dB



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Sheet size: **A4** Drawn date & no: 9/4/18

Scale: **NTS** Drawn by: **K.B**



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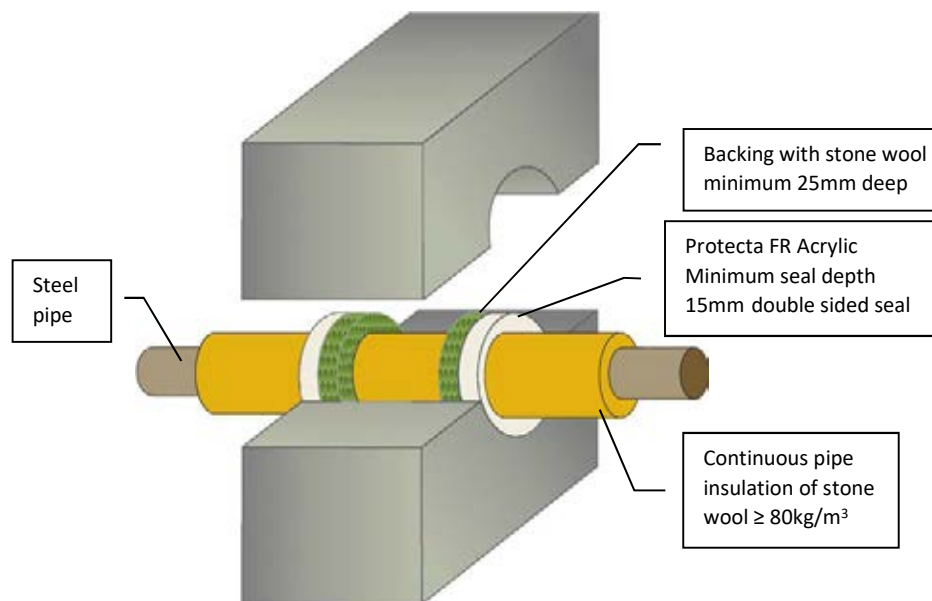
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Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of steel pipes in rigid walls

**Construction** Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m<sup>3</sup>

**Fire & Sound classification**  
  
Steel pipe ≤ Ø324mm with 30-80mm thick pipe insulation in maximum aperture 300x300mm or Ø504mm  
  
EI 240 C/U & E 240 C/U  
  
Sound reduction (seal only)  
  
Rw 62dB

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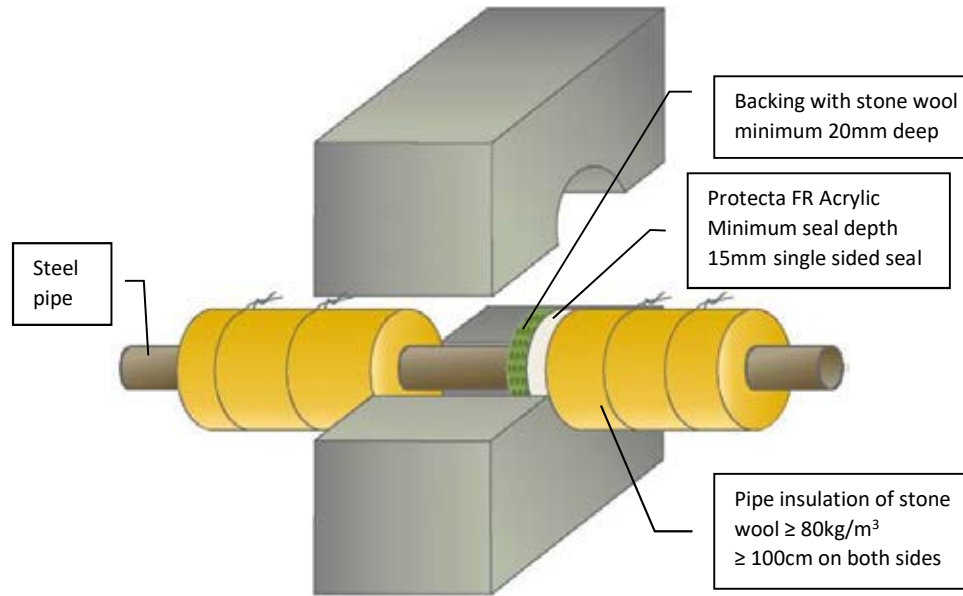
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Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of steel pipes in rigid walls

**Construction** Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m³

**Fire & Sound classification**

Steel pipe ≤ Ø40mm with ≥ 20mm thick pipe insulation and maximum annular ring width 18mm  
EI 240 C/U & E 240 C/U

Steel pipe ≤ Ø219mm with ≥ 30mm thick pipe insulation and maximum annular ring width 18mm  
EI 90 C/U & E 180 C/U

Sound reduction (seal only)  
Rw 62dB



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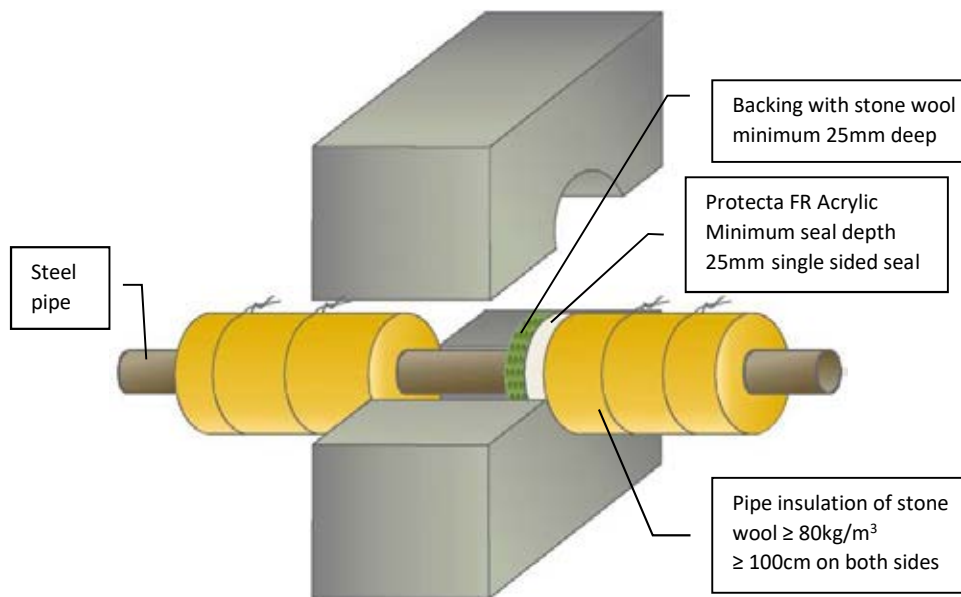
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Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of steel pipes in rigid walls

**Construction** Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m<sup>3</sup>

**Fire & Sound classification**

Steel pipe ≤ Ø40mm with ≥ 20mm thick pipe insulation in maximum aperture 300x300mm  
EI 60 C/U & E 240 C/U

Steel pipe ≤ Ø219mm with ≥ 30mm thick pipe insulation in maximum aperture 300x300mm  
EI 60 C/U & E 240 C/U

Sound reduction (seal only)  
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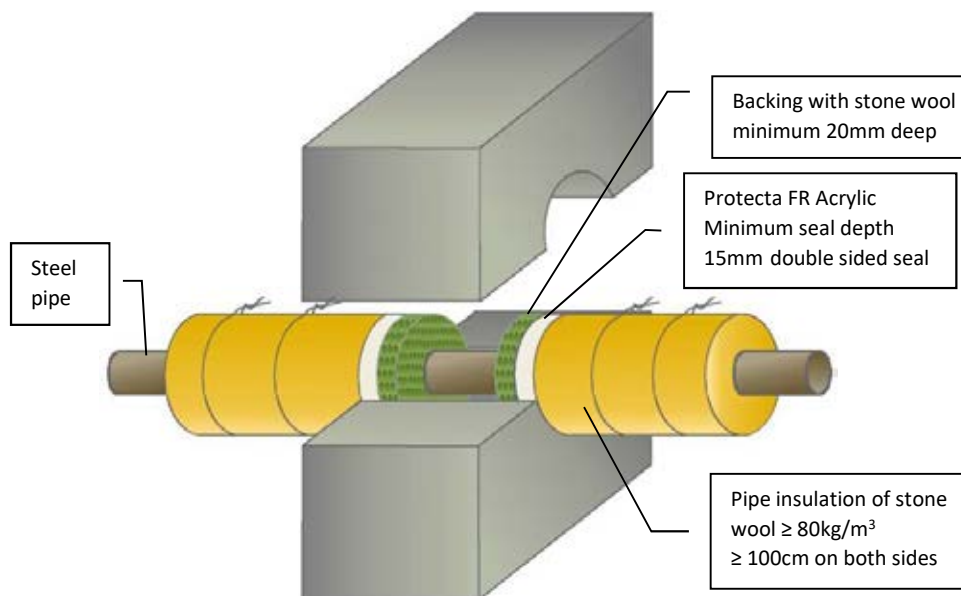
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Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of steel pipes in rigid walls

**Construction** Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m<sup>3</sup>

**Fire & Sound classification**

Steel pipe ≤ Ø219mm with ≥ 30mm thick pipe insulation in maximum aperture 300x300mm

EI 120 C/U & E 240 C/U

Sound reduction (seal only) Rw 62dB



ETA 18/0904

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Signed and approved:

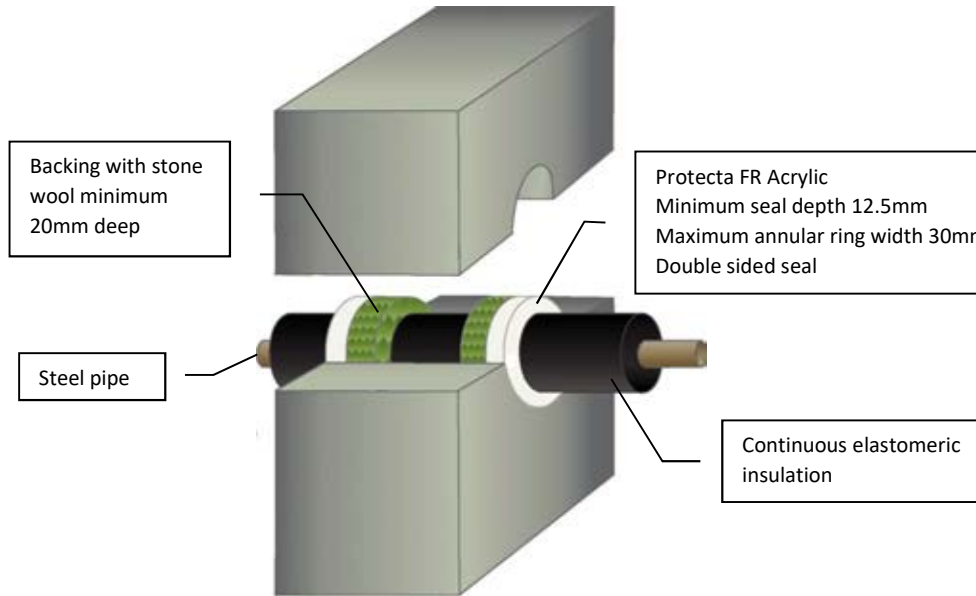
Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

Sheet size: **A4**      Drawn date & no: **7/3/15**

Scale: **NTS**      Drawn by: **K.B**

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4. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
5. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
6. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of steel pipes in rigid walls

**Construction** Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**

Steel pipe  $\leq \text{Ø}40\text{mm}$  with 13 – 19mm thick pipe insulation  
EI 120 C/C & E 120 C/C

Sound reduction (seal only)  
Rw 62dB



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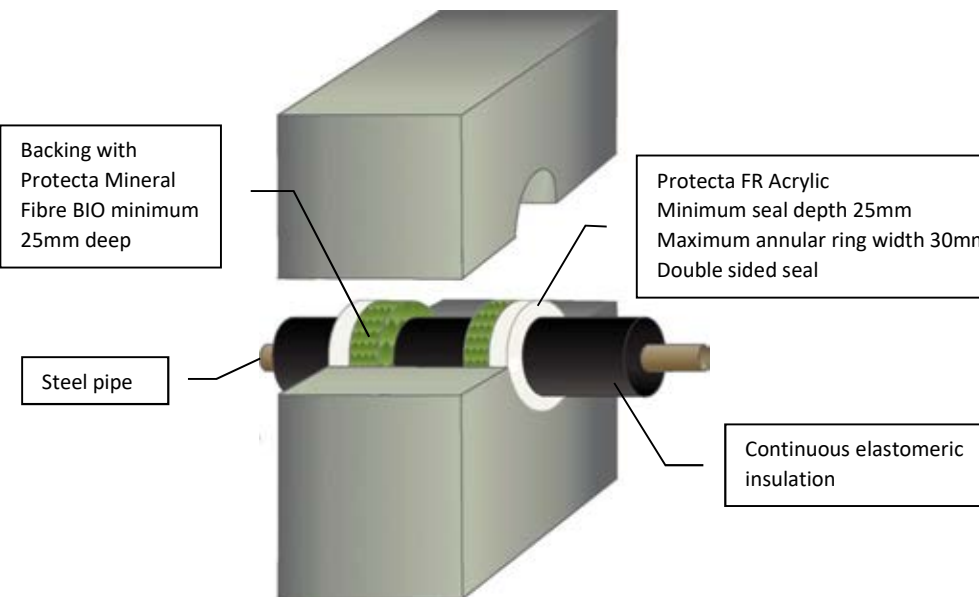
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Client:

Job Title:

**Products** Protecta FR Acrylic  
Protecta Mineral Fibre BIO

**Application** Fire stopping of steel pipes in rigid walls

**Construction** Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**

Steel pipe  $\leq \text{Ø}165\text{mm}$  with 13 – 19mm thick pipe insulation  
EI 60 C/C & E 120 C/C

Sound reduction (seal only)  
Rw 62dB

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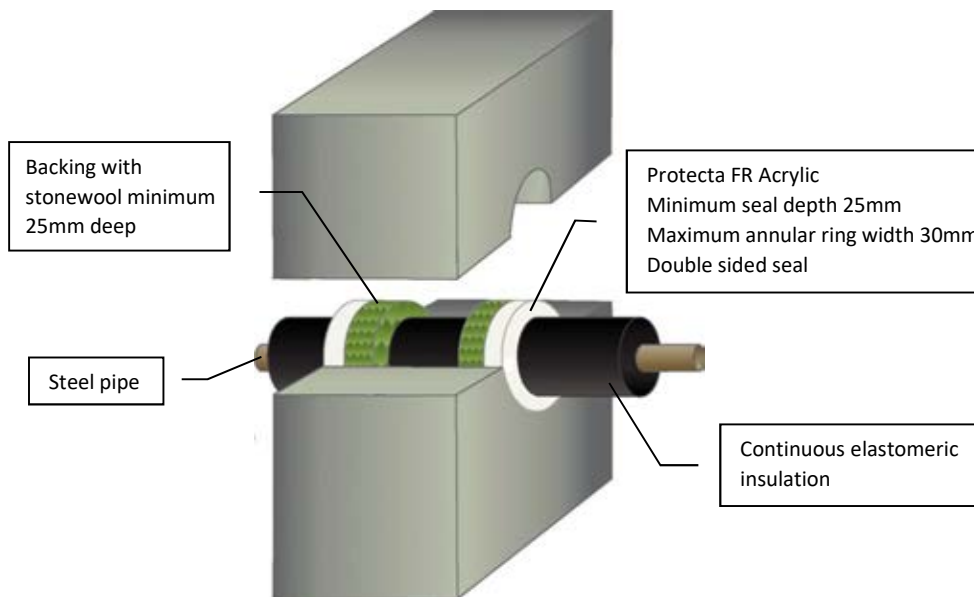
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Client:

Job Title:

**Products** Protecta FR Acrylic  
Protecta Mineral Fibre BIO

**Application** Fire stopping of steel pipes in rigid walls

**Construction** Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**

Steel pipe  $\leq \text{Ø}22\text{mm}$  with 13mm thick pipe insulation EI 180 C/U & E 240 C/U

Steel pipe  $\leq \text{Ø}114\text{mm}$  with 13 – 25mm thick pipe insulation EI 90 C/U & E 120 C/U

Steel pipe  $\leq \text{Ø}114\text{mm}$  with 26 – 50mm thick pipe insulation EI 60 C/U & E 60 C/U

Sound reduction (seal only) Rw 62dB

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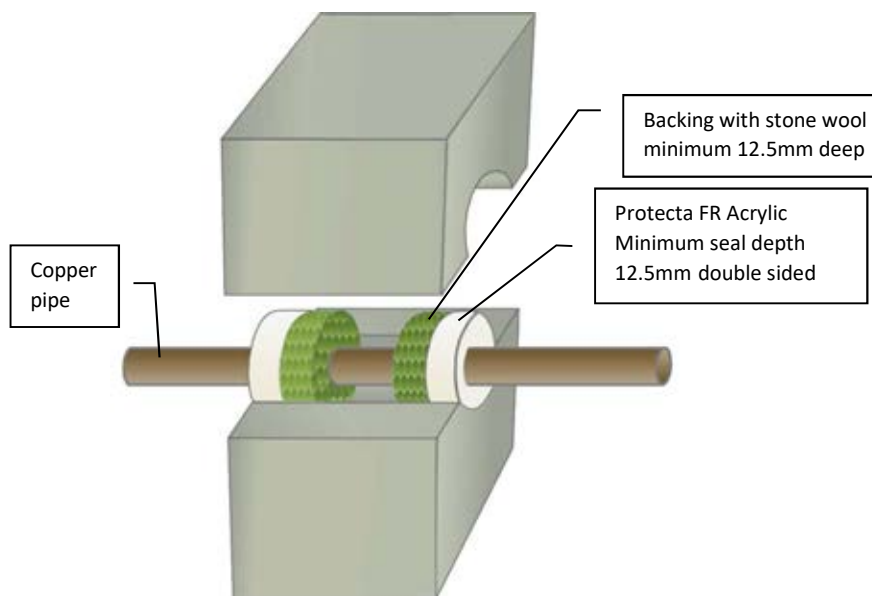
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Scale: **NTS** Drawn by: **K.B**

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Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of copper pipes in rigid walls

**Construction** Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**

Copper pipe  $\leq \text{Ø}12\text{mm}$  without pipe insulation in maximum aperture 300x300mm  
EI 60 C/C & E 90 C/C

Copper pipe  $\text{Ø}13\text{-}\text{Ø}22\text{mm}$  without pipe insulation in maximum aperture 300x300mm  
EI 30 C/C & E 90 C/C

Sound reduction (seal only) Rw 62dB

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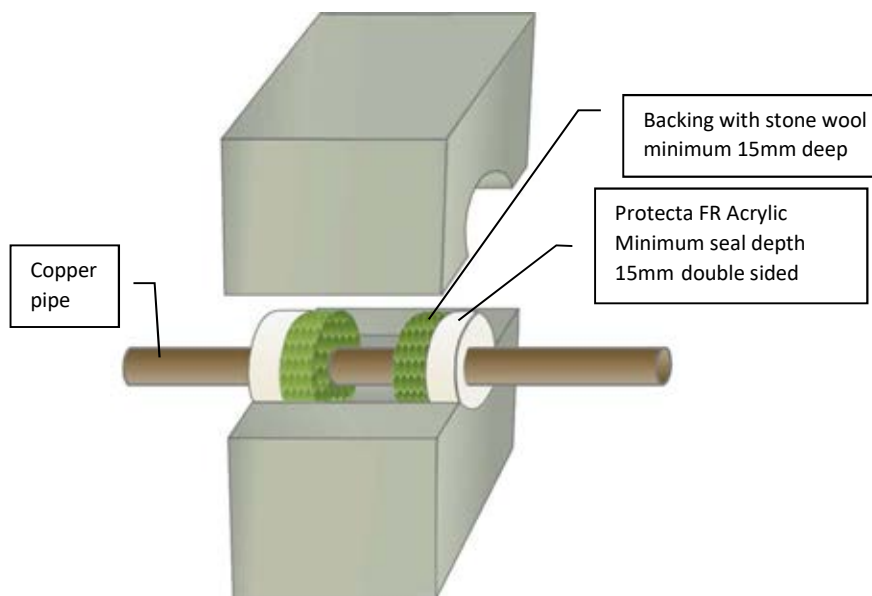
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Sheet size: **A4** Drawn date & no: 14/8/19

Scale: **NTS** Drawn by: **K.B**

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Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of copper pipes in rigid walls

**Construction** Minimum wall thickness of 120 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**

Copper pipe  $\leq \text{Ø}54\text{mm}$  without pipe insulation in maximum aperture 300x300mm  
E 120 C/C

Sound reduction (seal only)  
Rw 62dB

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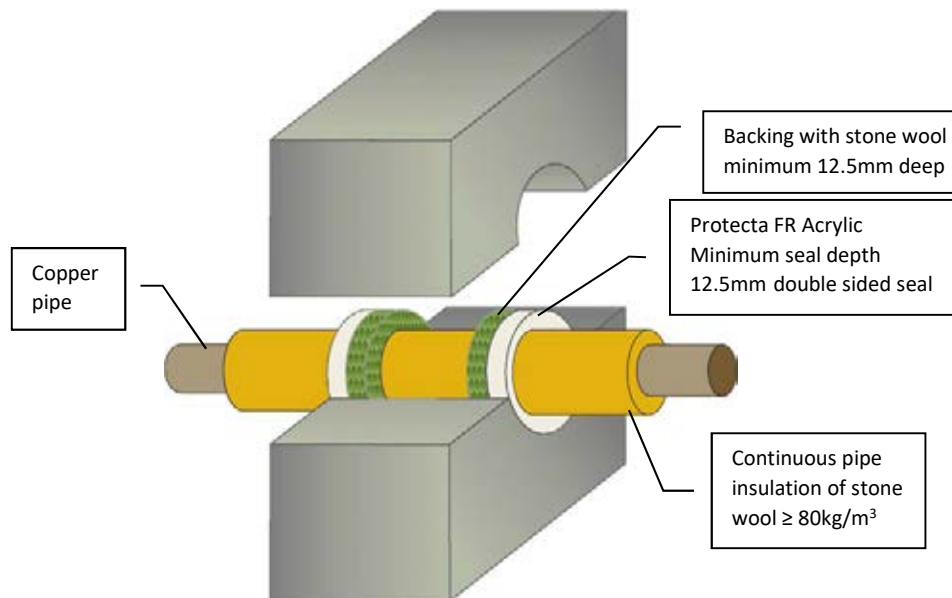
Sheet size: **A4** Drawn date & no: 14/8/19

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6. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of copper pipes in rigid walls

**Construction** Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m<sup>3</sup>

**Fire & Sound classification**

Copper pipe ≤ Ø54mm with 20-80mm thick pipe insulation in maximum aperture 300x300mm or Ø504mm

EI 60 C/C & E 120 C/C

Sound reduction (seal only)

Rw 62dB

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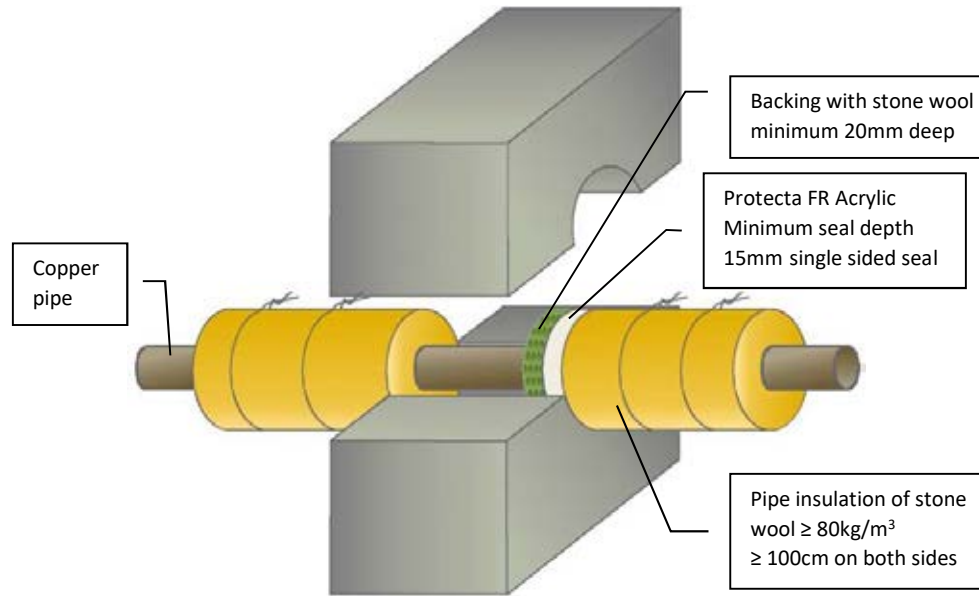
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Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of copper pipes in rigid walls

**Construction** Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m³

**Fire & Sound classification**

Copper pipe ≤ Ø12mm with ≥ 20mm thick pipe insulation and annular ring width 10mm  
EI 240 C/U & E 240 C/U

Copper pipe ≤ Ø54mm with ≥ 20mm thick pipe insulation and annular ring width 10mm  
EI 180 C/U & E 240 C/U

Sound reduction (seal only) Rw 62dB

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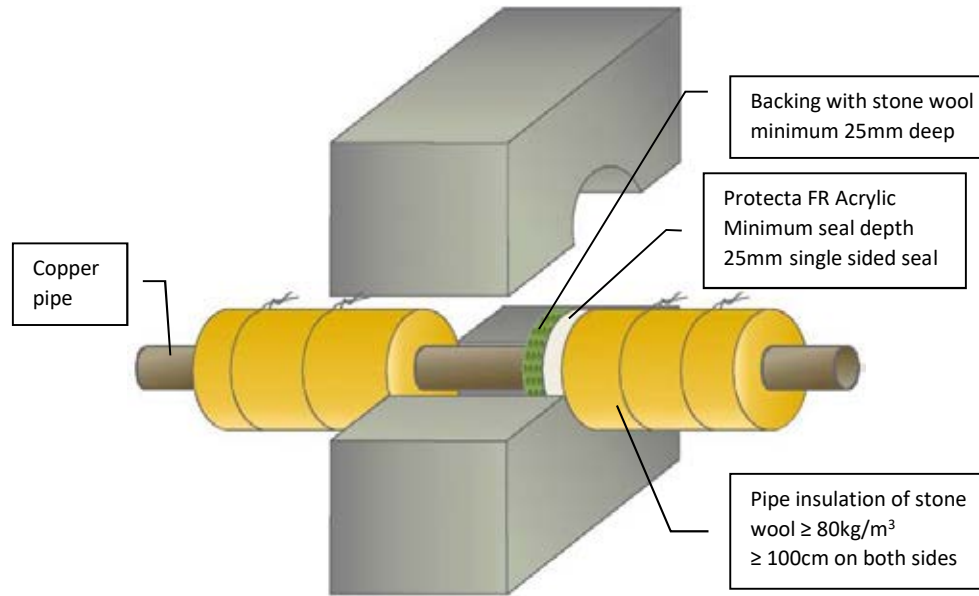
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Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of copper pipes in rigid walls

**Construction** Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m<sup>3</sup>

**Fire & Sound classification**

Copper pipe ≤ Ø54mm with ≥ 20mm thick pipe insulation in maximum aperture 300x300mm  
EI 60 C/U & E 240 C/U

Sound reduction (seal only) Rw 62dB

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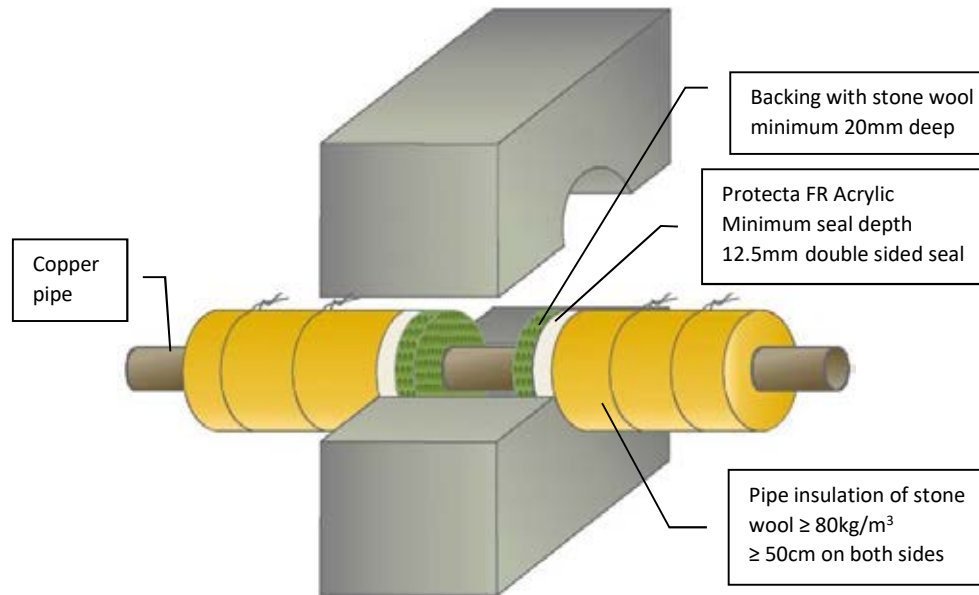
Signed and approved:

Sheet size: **A4**      Drawn date & no: 13/8/19

Scale: **NTS**      Drawn by: K.B

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Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of copper pipes in rigid walls

**Construction** Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m³

**Fire & Sound classification**

Copper pipe ≤ Ø54mm with ≥ 20mm thick pipe insulation in maximum aperture 300x300mm

EI 120 C/U & E 120 C/U

Sound reduction (seal only) Rw 62dB

**Protecta®**

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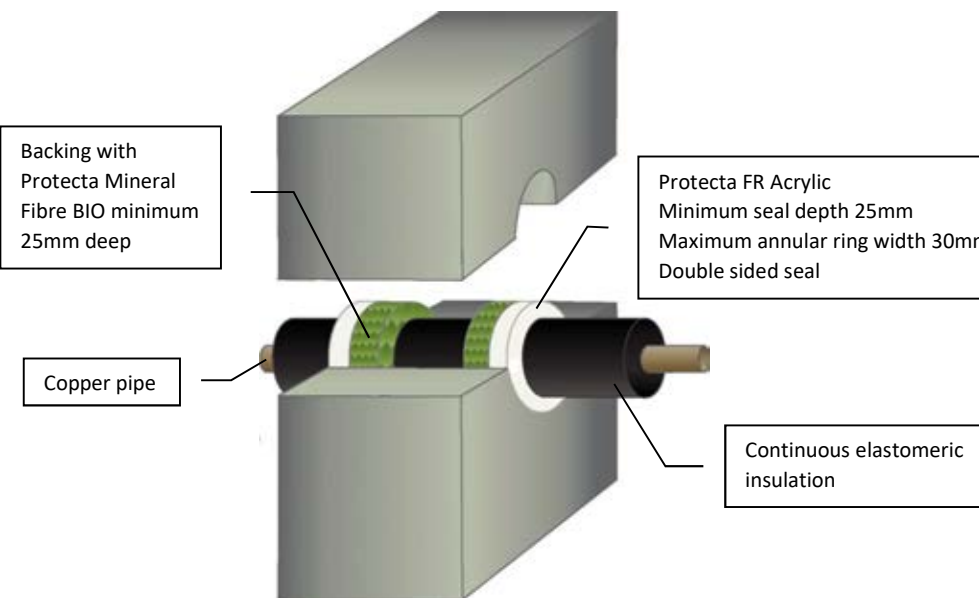
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Client:

Job Title:

**Products** Protecta FR Acrylic  
Protecta Mineral Fibre BIO

**Application** Fire stopping of copper pipes in rigid walls

**Construction** Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**

Copper pipe  $\leq \text{Ø}12\text{mm}$  with 9mm thick pipe insulation EI 120 C/C & E 120 C/C

Copper pipe  $\leq \text{Ø}54\text{mm}$  with 9-13mm thick pipe insulation EI 60 C/C & E 120 C/C

Copper pipe  $\leq \text{Ø}54\text{mm}$  with 14-25mm thick pipe insulation EI 60 C/C & E 60 C/C

Sound reduction (seal only) Rw 62dB

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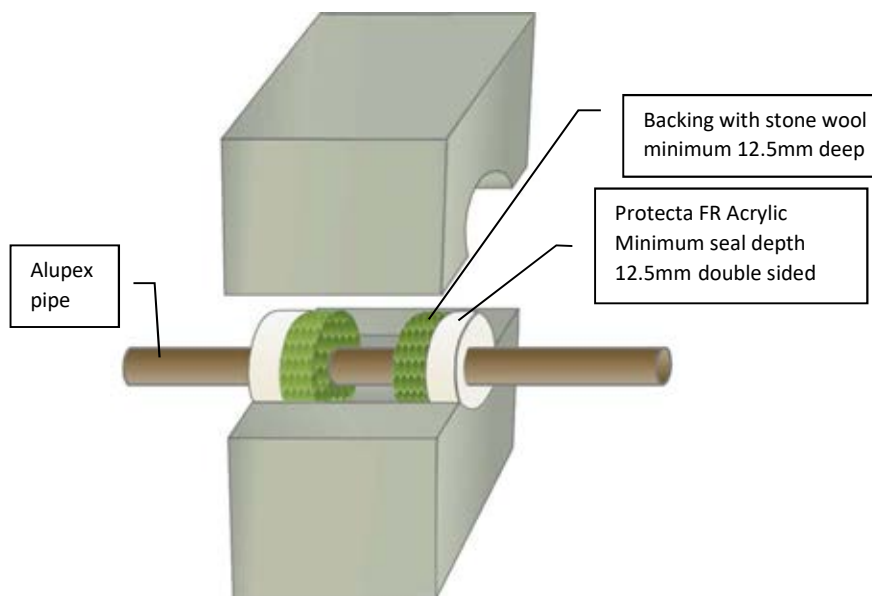
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Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of alupex pipes in rigid walls

**Construction** Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m³

**Fire & Sound classification**

Alupex pipe ≤ Ø20mm without pipe insulation in maximum aperture 300x300mm

EI 120 C/C & E 120 C/C

Sound reduction (seal only)

Rw 62dB

Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)



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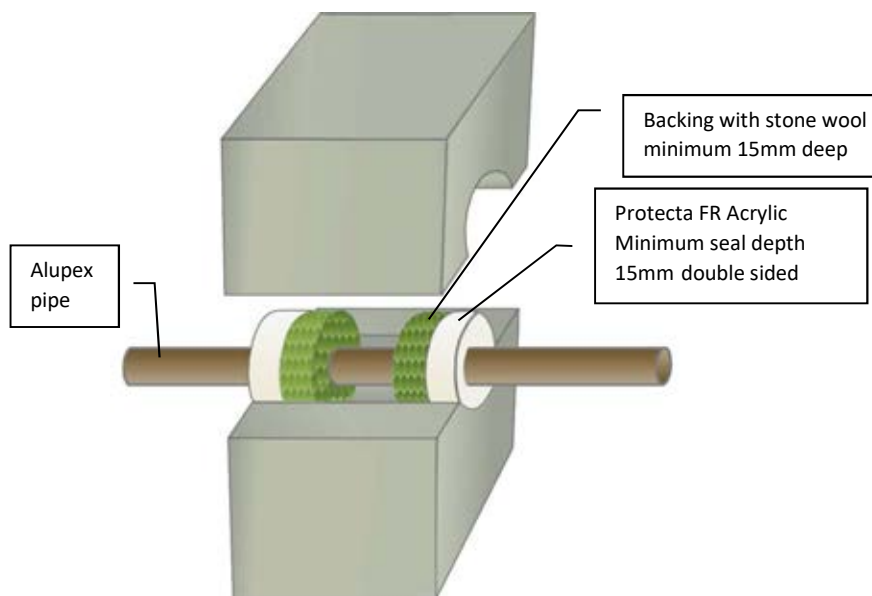
Signed and approved:

Sheet size: **A4**      Drawn date & no: **8/4/18**

Scale: **NTS**      Drawn by: **K.B**

Installation Instructions

1. Before installing Protecta® FR Acrylic ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Where Protecta® FR Acrylic is to be installed against surfaces that cannot tolerate direct contact; appropriate surface preparation should be made (contact Polyseam for guidance in these cases). For paints sensitive to sealing compounds, priming with a PVA primer is recommended.
3. As Protecta® FR Acrylic is water based, in cases where corrosion protection is a problem; some metals may require a barrier between the sealant and the metal surface prior to this installation.
4. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of alupex pipes in rigid walls

**Construction** Minimum wall thickness of 120 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**

Alupex pipe  $\leq \varnothing 75\text{mm}$  without pipe insulation in maximum aperture 300x300mm

EI 30 C/C & E 120 C/C

Sound reduction (seal only)

Rw 62dB

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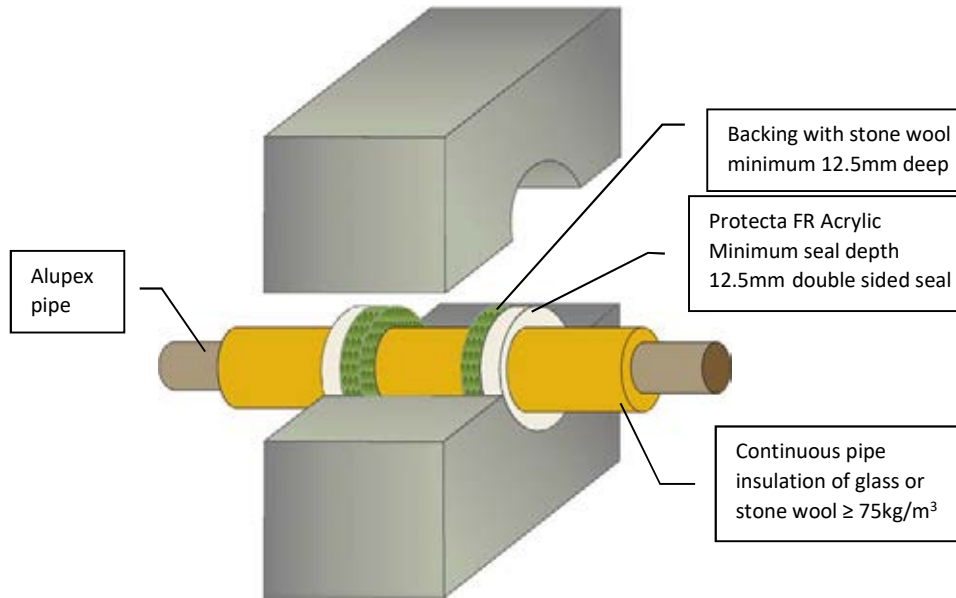
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Installation Instructions

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5. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
6. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of alupex pipes in rigid walls

**Construction** Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m³

**Fire & Sound classification**

Alupex pipe ≤ Ø75mm with 20-50mm thick pipe insulation in maximum aperture 300x300mm or Ø504mm

EI 120 C/C & E 120 C/C

Sound reduction (seal only)

Rw 62dB

**Protecta**<sup>®</sup>

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Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: post.uk@polyseam.com



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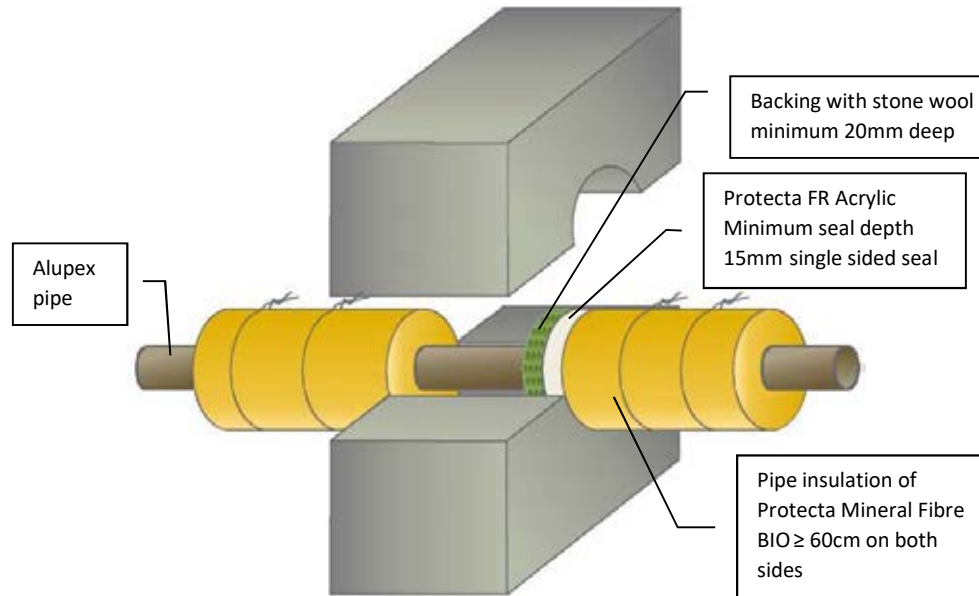
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Installation Instructions

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3. As Protecta® FR Acrylic is water based, in cases where corrosion protection is a problem; some metals may require a barrier between the sealant and the metal surface prior to this installation.
4. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of alupex pipes in rigid walls

**Construction** Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m<sup>3</sup>

**Fire & Sound classification**

Alupex pipe ≤ Ø75mm with ≥ 25mm thick pipe insulation and maximum annular ring width 30mm  
 EI 120 C/U & E 120 C/U

Sound reduction (seal only)  
 Rw 62dB

Polyseam Ltd, 15 St Andrews Road,  
 Huddersfield, West Yorkshire, HD1 6SB  
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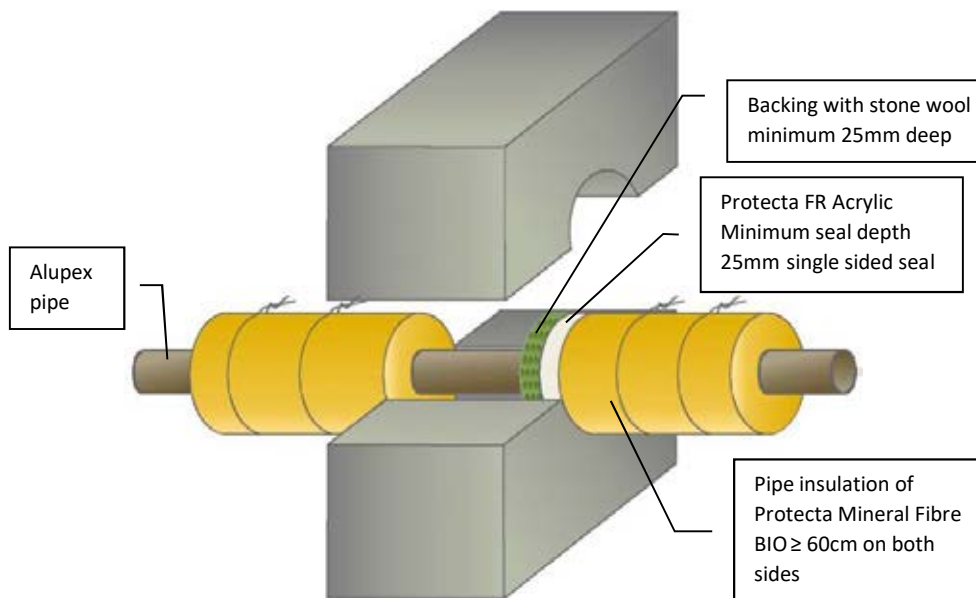
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Scale: **NTS**      Drawn by: K.B

Installation Instructions

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3. As Protecta® FR Acrylic is water based, in cases where corrosion protection is a problem; some metals may require a barrier between the sealant and the metal surface prior to this installation.
4. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of alupex pipes in rigid walls

**Construction** Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m<sup>3</sup>

**Fire & Sound classification**

Alupex pipe ≤ Ø75mm with ≥ 25mm thick pipe insulation in maximum aperture 300x300mm

EI 60 C/U & E 240 C/U

Sound reduction (seal only)

Rw 62dB



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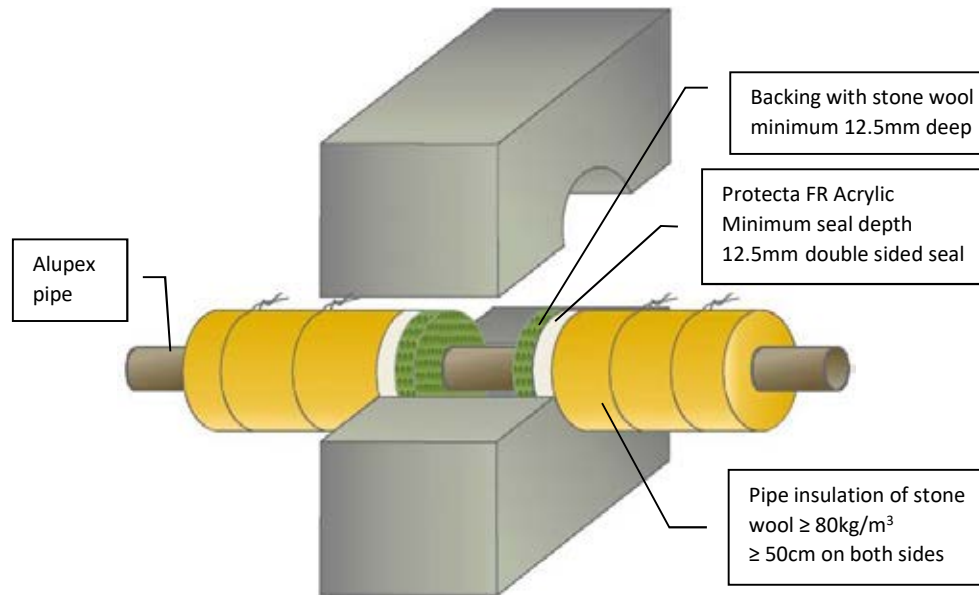
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Installation Instructions

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4. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of alupex pipes in rigid walls

**Construction** Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m³

**Fire & Sound classification**

Alupex pipe ≤ Ø75mm with ≥ 20mm thick pipe insulation in maximum aperture 300x300mm

EI 120 C/C & E 120 C/C

Sound reduction (seal only) Rw 62dB

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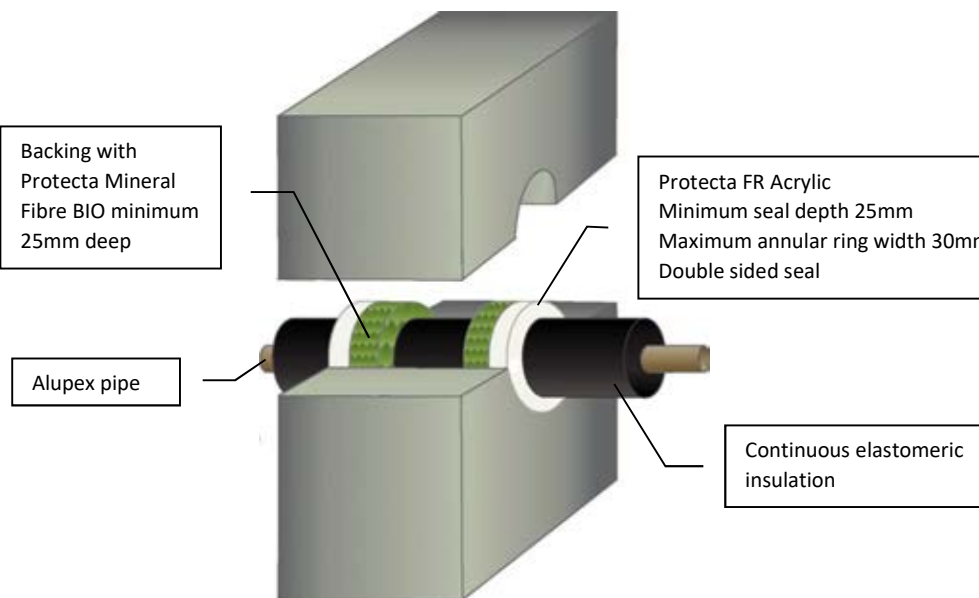
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4. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
5. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
6. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Protecta Mineral Fibre BIO

**Application** Fire stopping of alupex pipes in rigid walls

**Construction** Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**

Alupex pipe  $\leq \varnothing 16\text{mm}$  with 9mm thick pipe insulation EI 120 C/C & E 120 C/C

Alupex pipe  $\leq \varnothing 75\text{mm}$  with 9 – 25mm thick pipe insulation EI 60 C/C & E 60 C/C

Sound reduction (seal only) Rw 62dB

Polyseam Ltd, 15 St Andrews Road,  
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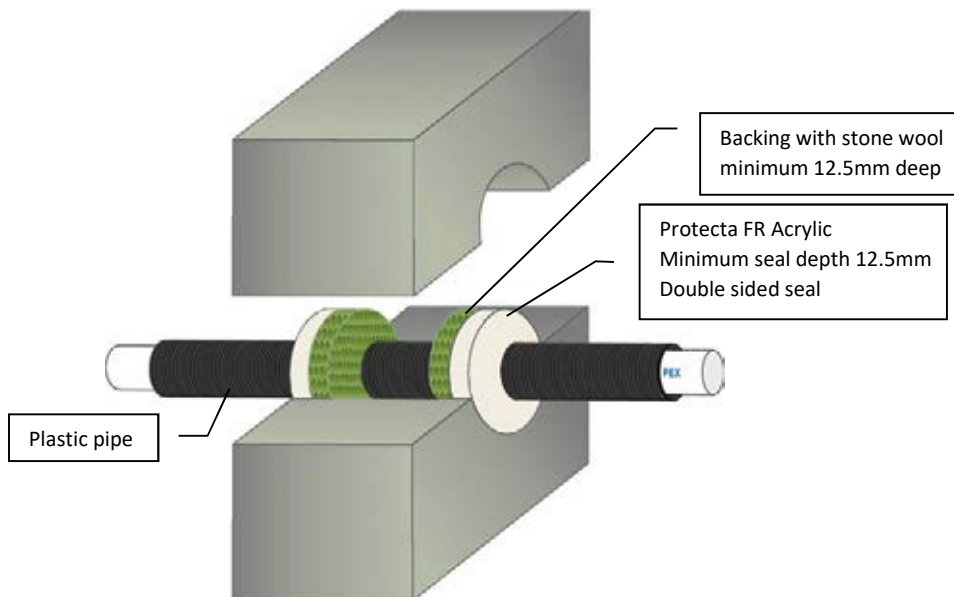
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Scale: **NTS** Drawn by: **K.B**

Installation Instructions

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4. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
5. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
6. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stonewool

**Application** Fire stopping of PEX plastic pipes in rigid walls

**Construction** Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**

PEX pipe-in-pipe  $\leq \text{Ø}25\text{mm}$  and maximum annular ring width 30mm  
EI 120 C/C & E 120 C/C

Sound reduction (seal only)  
Rw 62dB

**Protecta®**  
Polyseam Ltd, 15 St Andrews Road,  
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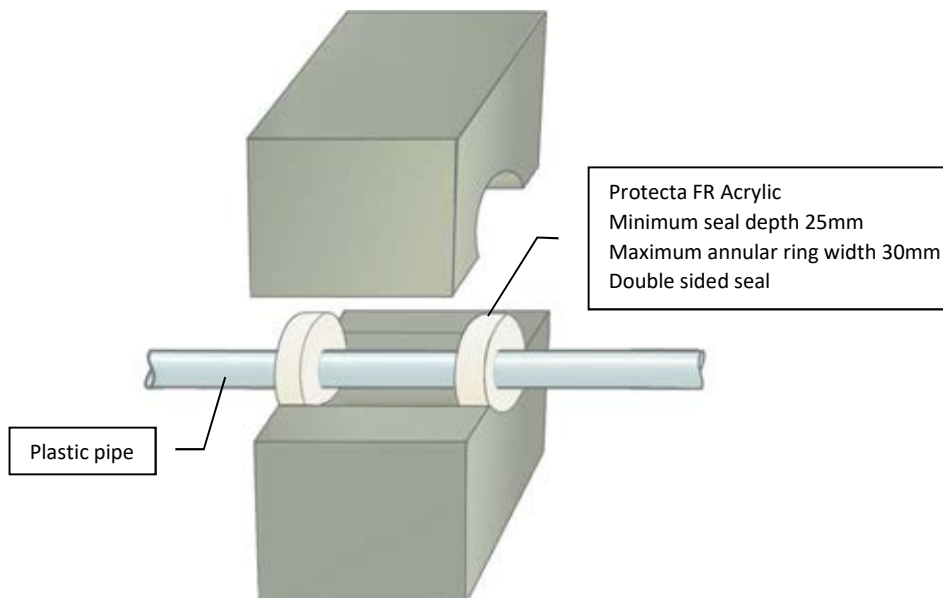
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Scale: **NTS**      Drawn by: K.B

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4. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
5. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
6. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
**Application** Fire stopping of plastic pipes in rigid walls  
**Construction** Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m<sup>3</sup>

**Fire & Sound classification**  
 PVC-U or PVC-C pipe ≤ Ø32mm with wall thickness 1.0-1.6mm EI 120 C/C & E 120 C/C  
 PVC-U or PVC-C pipe ≤ Ø32mm with wall thickness 1.0-2.4mm EI 90 U/C & E 120 U/C  
 PE, ABS or SAN+PVC pipe Ø20mm with wall thickness 2.0mm EI 120 U/C & E 120 U/C  
 PE, ABS or SAN+PVC pipe ≤ Ø32mm with wall thickness 2.0-3.0mm EI 90 C/C & E 90 C/C  
 PP pipe Ø20mm with wall thickness 2.2mm EI 120 U/C & E 120 U/C  
 PP pipe ≤ Ø32mm with wall thickness 1.8-4.4mm EI 60 C/C & E 60 C/C  
 Sound reduction (seal only) Rw 62dB



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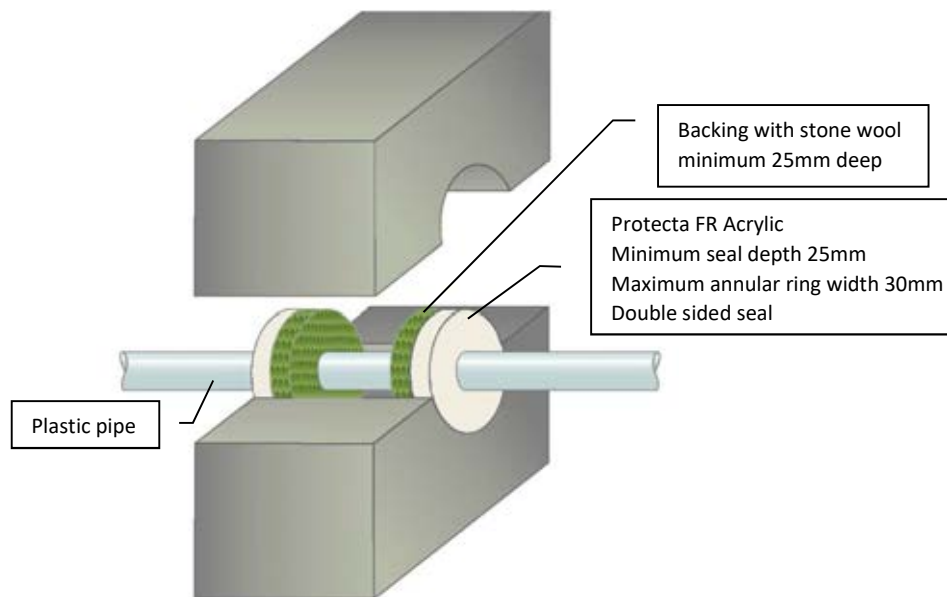
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4. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
5. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
6. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stonewool

**Application** Fire stopping of plastic pipes in rigid walls

**Construction** Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**

PVC-U or PVC-C pipe  $\leq \text{Ø}32\text{mm}$  with wall thickness 1.0-1.6mm  
EI 240 U/C & E 240 U/C

PE, ABS or SAN+PVC pipe  $\leq \text{Ø}32\text{mm}$  with wall thickness 2.0mm  
EI 240 C/U & E 240 C/U

PP pipe  $\text{Ø}32\text{mm}$  with wall thickness 2.0-4.4mm  
EI 180 C/U & E 180 C/U

Sound reduction (seal only) Rw 62dB



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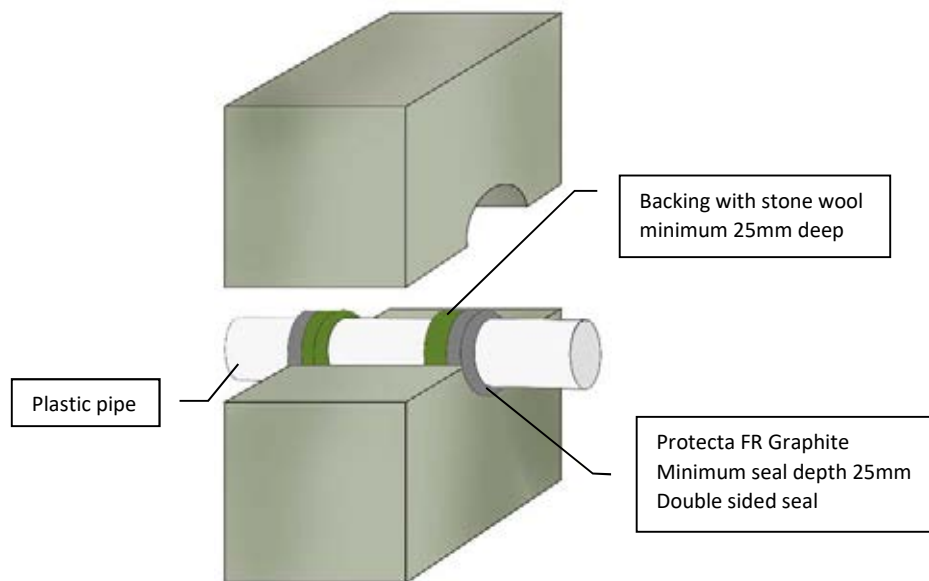
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Sheet size: **A4** Drawn date & no: **13/8/19**

Scale: **NTS** Drawn by: **K.B**

Installation Instructions

1. Before installing Protecta® FR Graphite ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
3. Fill the gap or joint with Protecta® FR Graphite to the required depth.
4. Apply the sealant generously avoiding air bubbles. Finish the bead with a moist spatula or pallet knife. Avoid excessive tooling/smoothing as this may make the seal surface wet and soft.
5. Protecta® FR Graphite can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Graphite  
Stone wool  
**Application** Fire stopping of plastic pipes in rigid walls  
**Construction** Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**

PVC-U or PVC-C pipe  $\leq 110 \text{ mm}$  diameter with wall thickness 1.9-6.6mm in seal widths between 10 and 30mm EI 120 U/C

PE, ABS or SAN+PVC pipe  $\leq 40 \text{ mm}$  diameter with wall thickness 2.4-3.7mm in seal widths between 10 and 30mm EI 120 U/C

PE, ABS or SAN+PVC pipe  $\leq 110 \text{ mm}$  diameter with wall thickness 2.4-4.2mm in seal widths between 10 and 30mm EI 60 U/C

PE, ABS or SAN+PVC pipe  $\leq 110 \text{ mm}$  diameter with wall thickness 4.3-10.0mm in seal widths between 10 and 30mm EI 90 U/C & E 120 U/C

Sound reduction (seal only) Rw 53dB



ETA 18/0626

  
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 Polyseam Ltd, 15 St Andrews Road,  
 Huddersfield, West Yorkshire, HD1 6SB  
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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

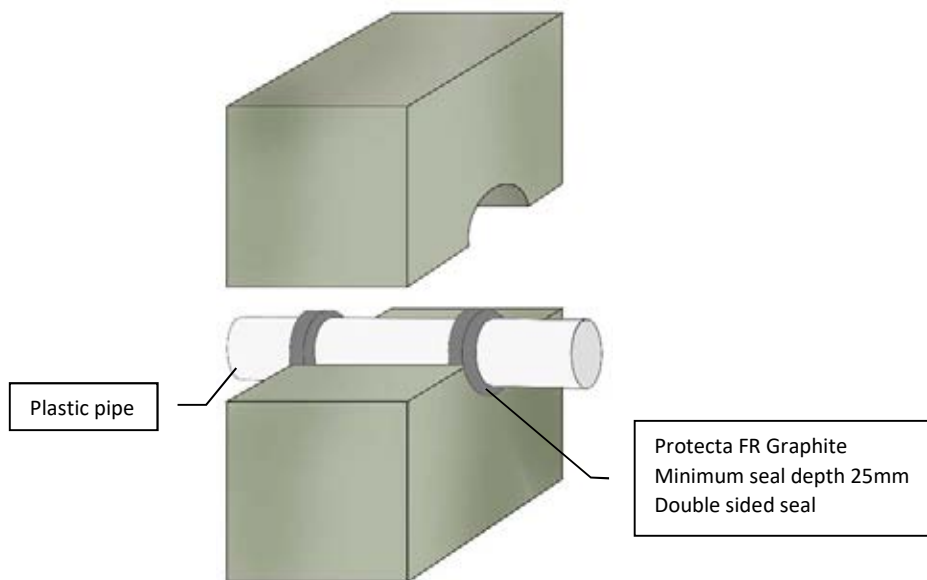
Sheet size:	Drawn date & no:
<b>A4</b>	11/11/18

Scale:	Drawn by:
<b>NTS</b>	K.B



Installation Instructions

1. Before installing Protecta® FR Graphite ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
3. Fill the gap or joint with Protecta® FR Graphite to the required depth.
4. Apply the sealant generously avoiding air bubbles. Finish the bead with a moist spatula or pallet knife. Avoid excessive tooling/smoothing as this may make the seal surface wet and soft.
5. Protecta® FR Graphite can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

<b>Products</b>	Protecta FR Graphite
<b>Application</b>	Fire stopping of plastic pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$

<b>Fire &amp; Sound classification</b>	
PVC-U or PVC-C pipe $\leq 160$ mm diameter with wall thickness 3.2-9.5mm in seal widths between 10 and 30mm	EI 30 U/C
PVC-U or PVC-C pipe $\leq 160$ mm diameter with wall thickness 9.5mm in seal widths between 10 and 30mm	EI 90 U/C
PP pipe $\leq 110$ mm diameter with wall thickness 1.8-6.3mm in seal widths between 10 and 30mm	EI 60 U/C
Sound reduction (seal only)	Rw 53dB



ETA 18/0626

  
**Protecta®**  
 Polyseam Ltd, 15 St Andrews Road,  
 Huddersfield, West Yorkshire, HD1 6SB  
 Tel: +44 (0) 148 4421036  
 Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

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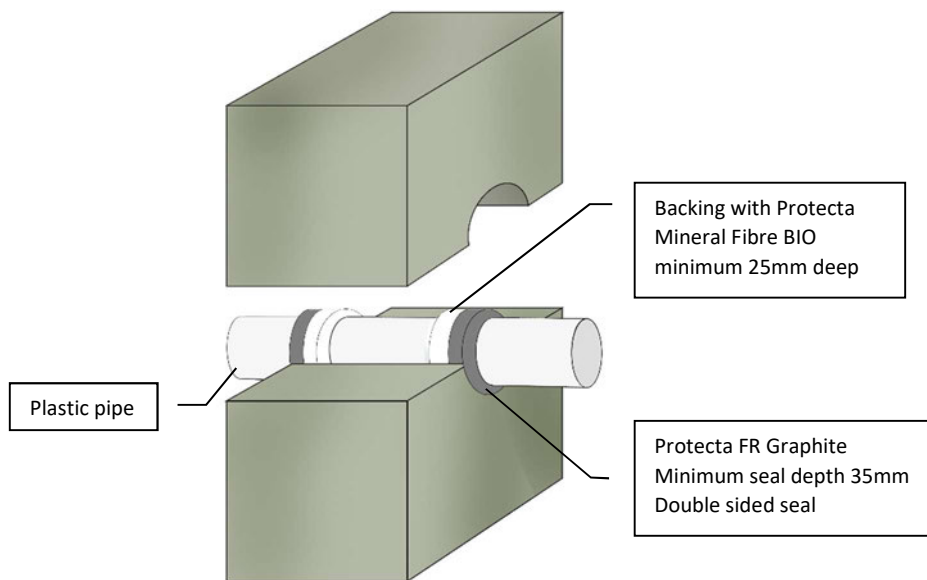
Signed and approved:

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<b>A4</b>	11/11/18

Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Before installing Protecta® FR Graphite ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
3. Fill the gap or joint with Protecta® FR Graphite to the required depth.
4. Apply the sealant generously avoiding air bubbles. Finish the bead with a moist spatula or pallet knife. Avoid excessive tooling/smoothing as this may make the seal surface wet and soft.
5. Protecta® FR Graphite can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

<b>Products</b>	Protecta FR Graphite
<b>Application</b>	Fire stopping of plastic pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$

<b>Fire &amp; Sound classification</b>	
PVC-U or PVC-C pipe $\leq 160$ mm diameter with wall thickness 4.0-9.5mm in seal widths between 10 and 30mm	EI 90 U/C
PVC-U or PVC-C pipe $\leq 160$ mm diameter with wall thickness 9.5mm in seal widths between 10 and 30mm	EI 180 U/C & E 240 U/C
Sound reduction (seal only)	Rw 53dB

Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: post.uk@polyseam.com



ETA 18/0626

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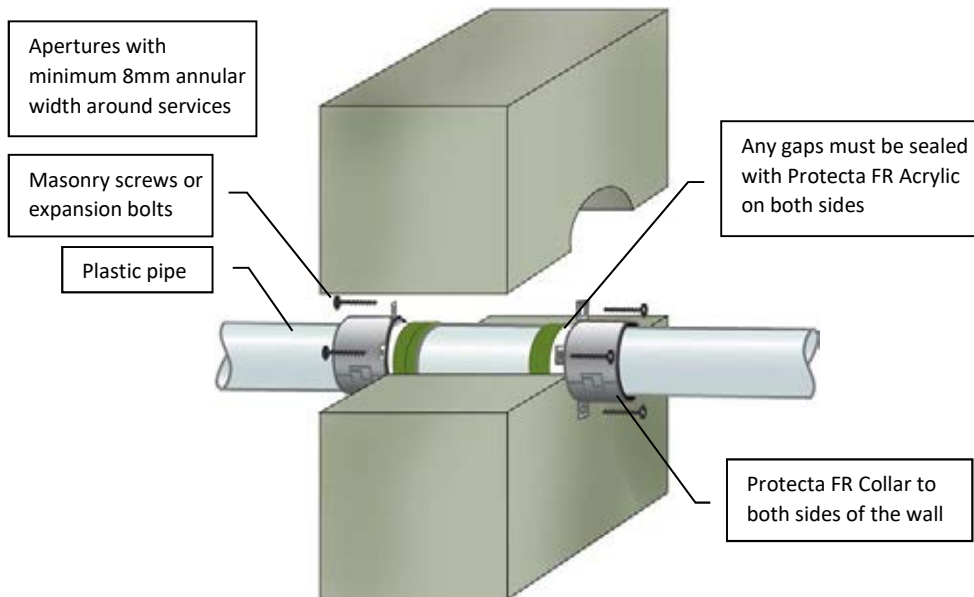
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Signed and approved:

Sheet size: <b>A4</b>	Drawn date & no: 11/11/18
Scale: <b>NTS</b>	Drawn by: K.B

### Installation Instructions

1. Before fitting the collars ensure that the gaps between the pipe and the separating element are sealed with minimum 25mm deep Protecta FR Acrylic to cover the opening.
2. Place a suitable collar around the pipe and ensure that the collar shell and fixing lugs are positioned tightly to the surface of the wall, so that the fixings can be inserted fully.
3. Where the surface is uneven, apply a sealing bead of Protecta® FR Acrylic between the wall and the collar shell.
4. Attach the collar with  $\geq \text{Ø}4 \times 40\text{mm}$  long masonry screws or expansion bolts.



Services	Minimum Collar Height	Classification
$\leq \text{Ø}50\text{mm}$ PVC-U & PVC-C	30mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 90)
$\leq \text{Ø}110\text{mm}$ PVC-U & PVC-C	30mm	EI 60 C/C, EI 60 U/C
$\leq \text{Ø}140\text{mm}$ PVC-U & PVC-C	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 90)
$\leq \text{Ø}160\text{mm}$ PVC-U & PVC-C	60mm	EI 90 C/C, EI 90 U/C, EI 60 C/U, EI 60 U/U
$\text{Ø}315 \times 9.2\text{mm}$ PVC-U & PVC-C	75mm	EI 60 C/C
$\leq \text{Ø}50\text{mm}$ PE, ABS & SAN+PVC	30mm	EI 60 C/C, EI 60 U/C (E 90)
$\leq \text{Ø}50\text{mm}$ PE, ABS & SAN+PVC	50mm	EI 90 C/C, EI 90 U/C, EI 90 C/U, EI 90 U/U (E 120)
$\leq \text{Ø}110\text{mm}$ PE, ABS & SAN+PVC	30mm	EI 60 C/C, EI 60 U/C
$\leq \text{Ø}110\text{mm}$ PE, ABS & SAN+PVC	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 90)
$\leq \text{Ø}140\text{mm}$ PE, ABS & SAN+PVC	60mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 90)
$\text{Ø}160\text{mm}$ PE, ABS & SAN+PVC	60mm	EI 90 C/C, EI 90 U/C, EI 90 C/U, EI 90 U/U
$\text{Ø}200 \times 18.2\text{mm}$ PE, ABS & SAN+PVC	75mm	EI 60 C/C
$\text{Ø}250 \times 22.7\text{mm}$ PE, ABS & SAN+PVC	75mm	EI 60 C/C
$\leq \text{Ø}50\text{mm}$ PP	30mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 90)
$\leq \text{Ø}110\text{mm}$ PP	30mm	EI 60 C/C, EI 60 U/C (E 90)
$\leq \text{Ø}110\text{mm}$ PP	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 90)
$\leq \text{Ø}160\text{mm}$ PP	60mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U



ETA 18/0854

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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:

Job Title:

**Products** Protecta FR Collar  
Protecta FR Acrylic

**Application** Fire stopping of plastic pipes in rigid walls

**Construction** Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

### Fire & Sound classification

Fire classifications in table on the left. For full specifications, please refer to the Installation Instructions.

Sound reduction (seal only)

Rw 58dB



# Protecta®

Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB

Tel: +44 (0) 148 4421036

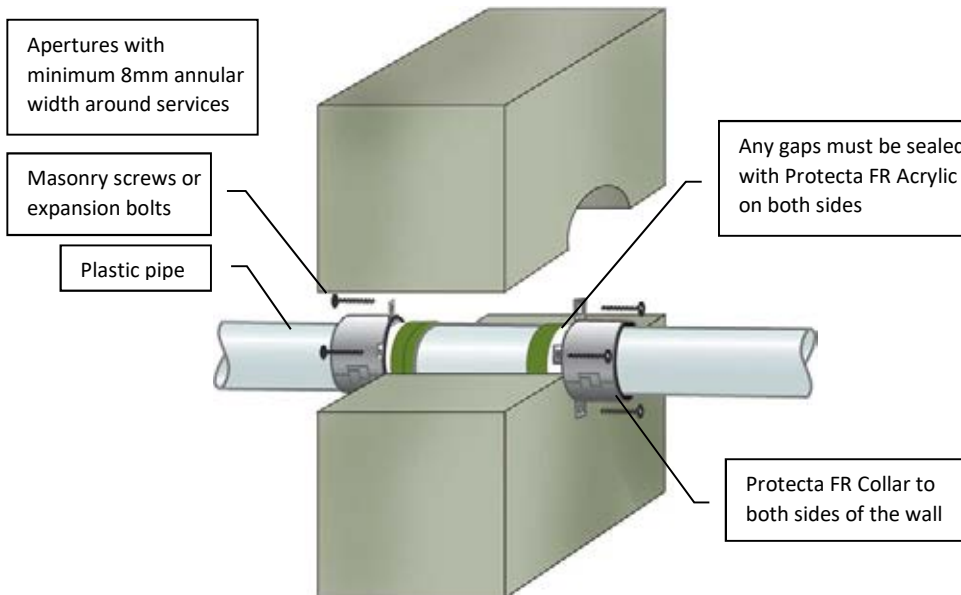
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

Sheet size: **A4**  
Drawn date & no: 20/8/19

Scale: **NTS**  
Drawn by: K.B

**Installation Instructions**

1. Before fitting the collars ensure that the gaps between the pipe and the separating element are sealed with minimum 25mm deep Protecta FR Acrylic to cover the opening.
2. Place a suitable collar around the pipe and ensure that the collar shell and fixing lugs are positioned tightly to the surface of the wall, so that the fixings can be inserted fully.
3. Where the surface is uneven, apply a sealing bead of Protecta® FR Acrylic between the wall and the collar shell.
4. Attach the collar with  $\geq \text{Ø}4 \times 40\text{mm}$  long masonry screws or expansion bolts.



Services	Minimum Collar Height	Classification
≤ Ø110mm PVC-U & PVC-C	50mm	EI 120 C/C
≤ Ø160mm PVC-U & PVC-C	60mm	EI 120 C/C
≤ Ø50mm PE, ABS & SAN+PVC	50mm	EI 120 C/C
≤ Ø110mm PE, ABS & SAN+PVC	50mm	EI 90 C/C (E 120)
Ø110x3.4mm PE, ABS & SAN+PVC	50mm	EI 120 C/C
≤ Ø160mm PE, ABS & SAN+PVC	60mm	EI 90 C/C
Ø160x9.5mm PE, ABS & SAN+PVC	60mm	EI 120 C/C
≤ Ø50mm PP	50mm	EI 120 C/C
≤ Ø110mm PP	50mm	EI 90 C/C (E 120)
≤ Ø140mm PP	60mm	EI 90 C/C (E 120)
Ø160mm PP	60mm	EI 120 C/C

Client:

Job Title:

**Products** Protecta FR Collar  
Protecta FR Acrylic

**Application** Fire stopping of plastic pipes in rigid walls

**Construction** Minimum wall thickness of 120 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**

Fire classifications in table on the left. For full specifications, please refer to the Installation Instructions.

Sound reduction (seal only)

Rw 58dB



ETA 18/0854



Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB

Tel: +44 (0) 148 4421036

Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

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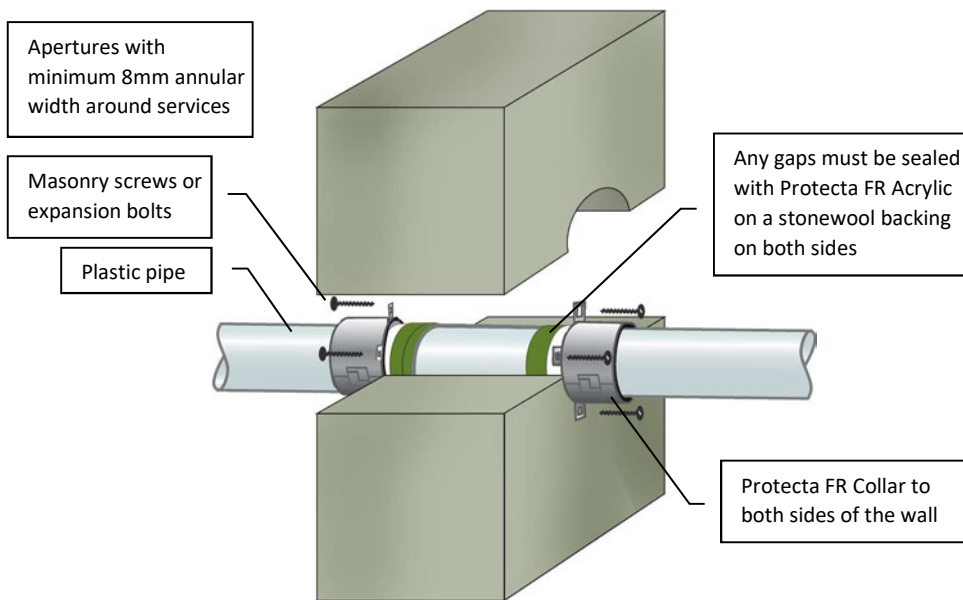
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Signed and approved:

### Installation Instructions

1. Before fitting the collars ensure that the gaps between the pipe and the separating element are sealed with minimum 20mm deep Protecta FR Acrylic on 20mm deep stone wool to cover the opening.
2. Place a suitable collar around the pipe and ensure that the collar shell and fixing lugs are positioned tightly to the surface of the wall, so that the fixings can be inserted fully.
3. Where the surface is uneven, apply a sealing bead of Protecta® FR Acrylic between the wall and the collar shell.
4. Attach the collar with  $\geq \text{Ø}4 \times 40\text{mm}$  long masonry screws or expansion bolts.



Services	Minimum Collar Height	Classification
≤ Ø50mm PVC-U & PVC-C	50mm	EI 180 C/C, EI 180 U/C, EI 180 C/U, EI 180 U/U (E 240)
≤ Ø110mm PVC-U & PVC-C	50mm	EI 180 C/C, EI 180 U/C, EI 180 C/U, EI 180 U/U
≤ Ø160mm PVC-U & PVC-C	60mm	EI 240 C/C, EI 240 U/C, EI 240 C/U, EI 240 U/U
Ø315x9.2mm PVC-U & PVC-C	75mm	EI 120 C/C
≤ Ø50mm PE, ABS & SAN+PVC	50mm	EI 240 C/C, EI 240 U/C, EI 240 C/U, EI 240 U/U
≤ Ø110mm PE, ABS & SAN+PVC	50mm	EI 180 C/C, EI 180 U/C, EI 180 C/U, EI 180 U/U (E 240)
≤ Ø160mm PE, ABS & SAN+PVC	60mm	EI 180 C/C, EI 180 U/C, EI 180 C/U, EI 180 U/U
Ø200x18.2mm PE, ABS & SAN+PVC	75mm	EI 60 C/C
Ø250x22.7mm PE, ABS & SAN+PVC	75mm	EI 90 C/C (E 120)
≤ Ø50mm PP	30mm	EI 240 C/C, EI 240 U/C, EI 240 C/U, EI 240 U/U
≤ Ø110mm PP	50mm	EI 240 C/C, EI 240 U/C, EI 90 C/U, EI 90 U/U (E 240)
≤ Ø140mm PP	60mm	EI 180 C/C, EI 180 U/C, EI 60 C/U, EI 60 U/U (E 240)
Ø160mm PP	60mm	EI 180 C/C, EI 180 U/C, EI 180 C/U, EI 180 U/U (E 240)



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Signed and approved:

Client:

Job Title:

**Products** Protecta FR Collar  
Protecta FR Acrylic

**Application** Fire stopping of plastic pipes in rigid walls

**Construction** Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

### Fire & Sound classification

Fire classifications in table on the left. For full specifications, please refer to the Installation Instructions.

Sound reduction (seal only)

Rw 58dB



Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB

Tel: +44 (0) 148 4421036

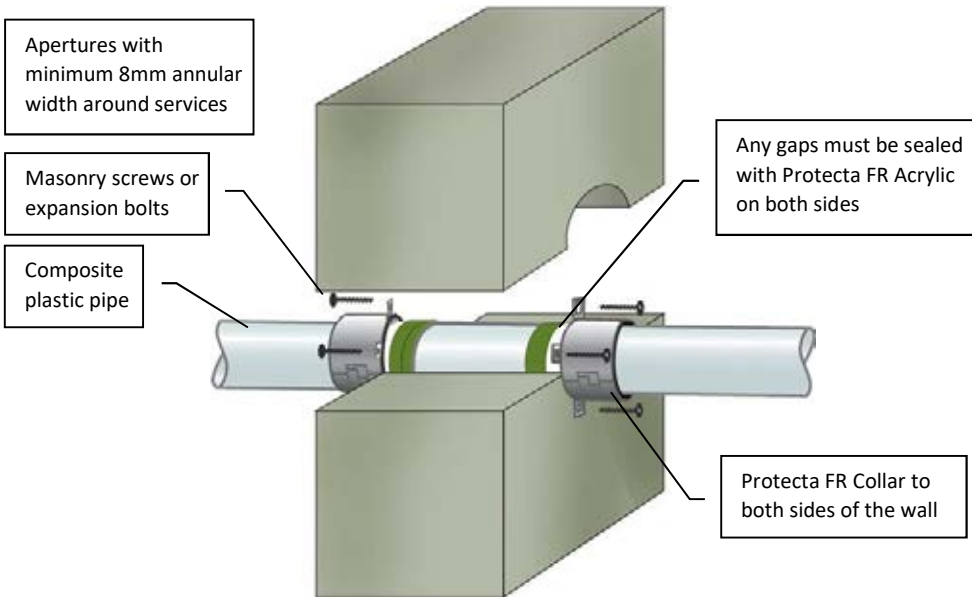
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

Sheet size: **A4**  
Drawn date & no: 20/8/19

Scale: **NTS**  
Drawn by: K.B

**Installation Instructions**

1. Before fitting the collars ensure that the gaps between the pipe and the separating element are sealed with minimum 25mm deep Protecta FR Acrylic to cover the opening.
2. Place a suitable collar around the pipe and ensure that the collar shell and fixing lugs are positioned tightly to the surface of the wall, so that the fixings can be inserted fully.
3. Where the surface is uneven, apply a sealing bead of Protecta® FR Acrylic between the wall and the collar shell.
4. Attach the collar with  $\geq \text{Ø}4 \times 40\text{mm}$  long masonry screws or expansion bolts.



Services	Minimum Collar Height	Classification
≤ Ø32mm Aquatherm Green SDR9	30mm	EI 120 C/C
≤ Ø50mm Aquatherm Green SDR9	50mm	EI 120 C/C
≤ Ø110mm Aquatherm Green SDR9	50mm	EI 60 C/C (E 120)
≤ Ø50mm BluePower	50mm	EI 90 C/C, EI 90 U/C, EI 90 C/U, EI 90 U/U (E 120)
≤ Ø110mm BluePower	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U (E 120)
Ø125mm BluePower	60mm	EI 60 C/C, EI 60 U/C, EI 60 C/U
Ø160mm BluePower	60mm	EI 90 C/C, EI 90 U/C, EI 90 C/U
≤ Ø50mm Geberit Silent-PP	50mm	EI 120 C/C, EI 120 U/C, EI 120 C/U, EI 120 U/U
≤ Ø110mm Geberit Silent-PP	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 120)
≤ Ø50mm Polo-Kal NG pipes	50mm	EI 120 C/C, EI 120 U/C, EI 120 C/U, EI 120 U/U
≤ Ø110mm Polo-Kal NG pipes	50mm	EI 90 C/C, EI 90 U/C, EI 90 C/U, EI 90 U/U (E 120)
Ø125mm Polo-Kal NG pipes	60mm	EI 120 C/C, EI 120 U/C (E 120 C/U, E 120 U/U)
Ø160mm Polo-Kal NG pipes	60mm	EI 120 C/C, EI 120 U/C, EI 120 C/U, EI 120 U/U
≤ Ø50mm Rehau Raupiano Plus	50mm	EI 90 C/C, EI 90 U/C, EI 90 C/U, EI 90 U/U (E 120)
≤ Ø110mm Rehau Raupiano Plus	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 120)
≤ Ø160mm Rehau Raupiano Plus	60mm	EI 120 C/C, EI 120 U/C, EI 120 C/U, EI 120 U/U
≤ Ø50mm Wavin SiTech	50mm	EI 120 C/C, EI 120 U/C, EI 120 C/U, EI 120 U/U
≤ Ø110mm Wavin SiTech	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 120)



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Signed and approved:

Client:

Job Title:

**Products** Protecta FR Collar  
Protecta FR Acrylic

**Application** Fire stopping of composite plastic pipes in rigid walls

**Construction** Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of  $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**

Fire classifications in table on the left. For full specifications, please refer to the Installation Instructions.

Sound reduction (seal only) Rw 58dB

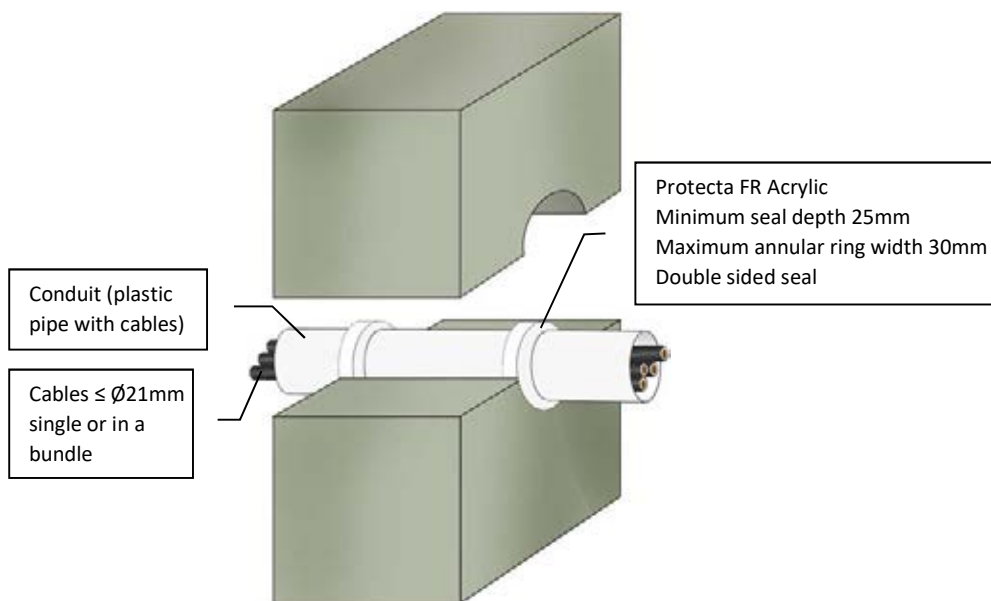
Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

Sheet size: **A4**      Drawn date & no: **20/8/19**

Scale: **NTS**      Drawn by: **K.B**

Installation Instructions

1. Before installing Protecta® FR Acrylic ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Where Protecta® FR Acrylic is to be installed against surfaces that cannot tolerate direct contact; appropriate surface preparation should be made (contact Polyseam for guidance in these cases). For paints sensitive to sealing compounds, priming with a PVA primer is recommended.
3. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
4. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
5. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
6. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

<b>Products</b>	Protecta FR Acrylic
<b>Application</b>	Fire stopping of conduits in rigid walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m <sup>3</sup>

<b>Fire &amp; Sound classification</b>	
PVC-U or PVC-C conduit/pipe ≤ Ø40mm with wall thickness 1.0 – 1.9mm	EI 120 U/C & E 120 U/C
PE, ABS or SAN+PVC conduit/pipe ≤ Ø40mm with wall thickness 2.0 – 3.0mm	EI 90 U/C & E 90 U/C
PP conduit/pipe ≤ Ø40mm with wall thickness 1.8 – 2.2mm	EI 90 U/C & E 90 U/C
Sound reduction (seal only)	Rw 62dB



ETA 18/0904



Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

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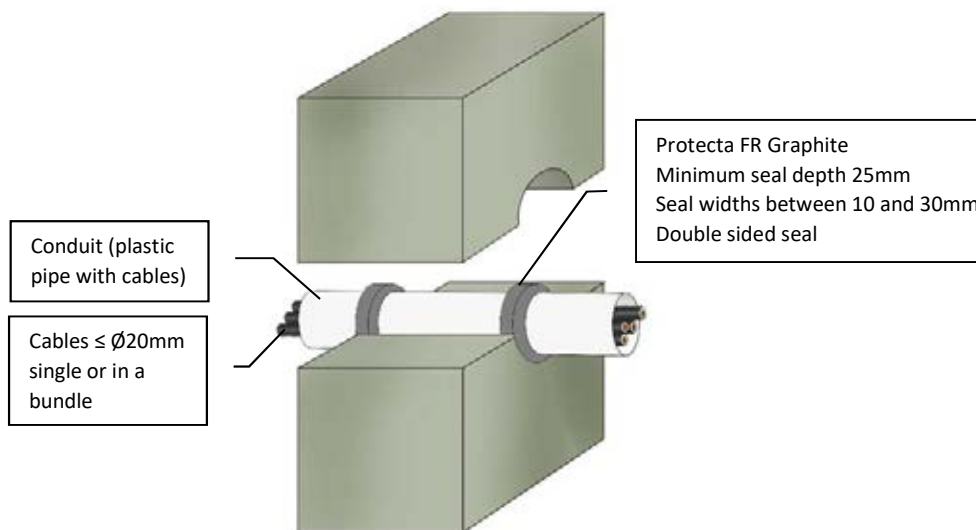
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Sheet size: <b>A4</b>	Drawn date & no: 14/8/19
Scale: <b>NTS</b>	Drawn by: K.B

Installation Instructions

1. Before installing Protecta® FR Graphite ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
3. Fill the gap or joint with Protecta® FR Graphite to the required depth.
4. Apply the sealant generously avoiding air bubbles. Finish the bead with a moist spatula or pallet knife. Avoid excessive tooling/smoothing as this may make the seal surface wet and soft.
5. Protecta® FR Graphite can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

<b>Products</b>	Protecta FR Graphite
<b>Application</b>	Fire stopping of conduits in rigid walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m <sup>3</sup>

<b>Fire &amp; Sound classification</b>	
PE, ABS or SAN+PVC conduit/pipe ≤ Ø110mm with wall thickness 2.4 - 10.0mm	EI 60 U/C
PP conduit/pipe ≤ Ø110mm with wall thickness 2.7 - 6.6mm	EI 90 U/C
PVC-U or PVC-C conduit/pipe ≤ Ø110mm with wall thickness 1.9 - 6.6mm	EI 90 U/C
Sound reduction (seal only)	Rw 53dB

**Protecta**  
 Polyseam Ltd, 15 St Andrews Road,  
 Huddersfield, West Yorkshire, HD1 6SB  
 Tel: +44 (0) 148 4421036  
 Email: post.uk@polyseam.com



ETA 18/0626

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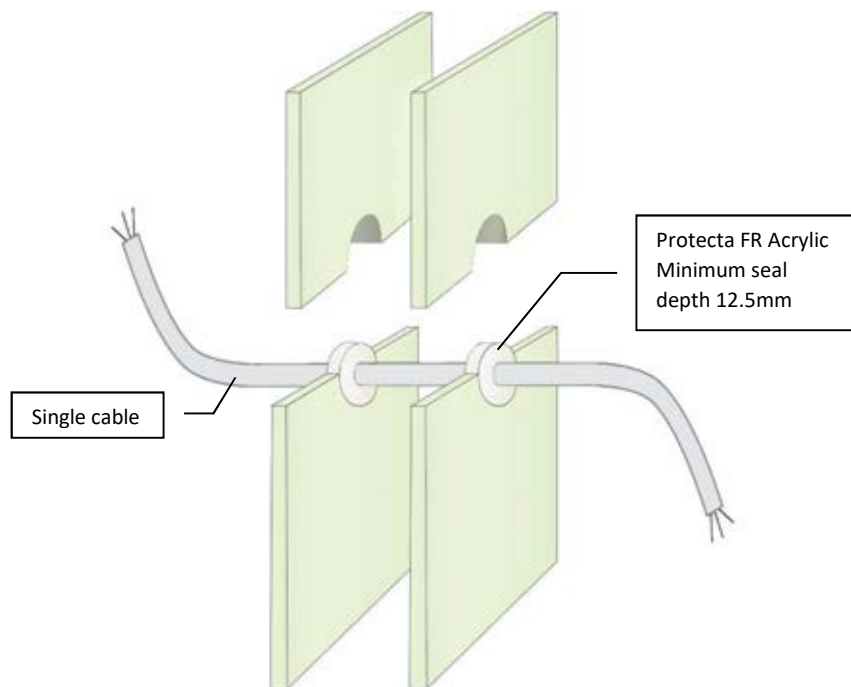
Signed and approved:

Sheet size: <b>A4</b>	Drawn date & no: 11/11/18
Scale: <b>NTS</b>	Drawn by: K.B



Installation Instructions

1. Before installing Protecta® FR Acrylic ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Where Protecta® FR Acrylic is to be installed against surfaces that cannot tolerate direct contact; appropriate surface preparation should be made (contact Polyseam for guidance in these cases). For paints sensitive to sealing compounds, priming with a PVA primer is recommended.
3. When installing the sealant in gypsum boards, the exposed edges of the board can be wetted with water, or Protecta® FR Acrylic diluted with water to prime the surfaces helping adhesion and preventing excessive joint shrinkage.
4. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
**Application** Fire stopping of cables in flexible walls  
**Construction** Minimum wall thickness of 75 mm and comprise steel studs or timber studs\* lined on both faces with minimum 1 layer of 12.5 mm thick boards

**Fire & Sound classification**  
 Cable ≤ Ø21mm in double sided seal in maximum aperture 150x150mm  
 EI 45 & E 60  
 Sound reduction (seal only)  
 Rw 62 dB

Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB  
 Tel: +44 (0) 148 4421036  
 Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)



ETA 18/0904

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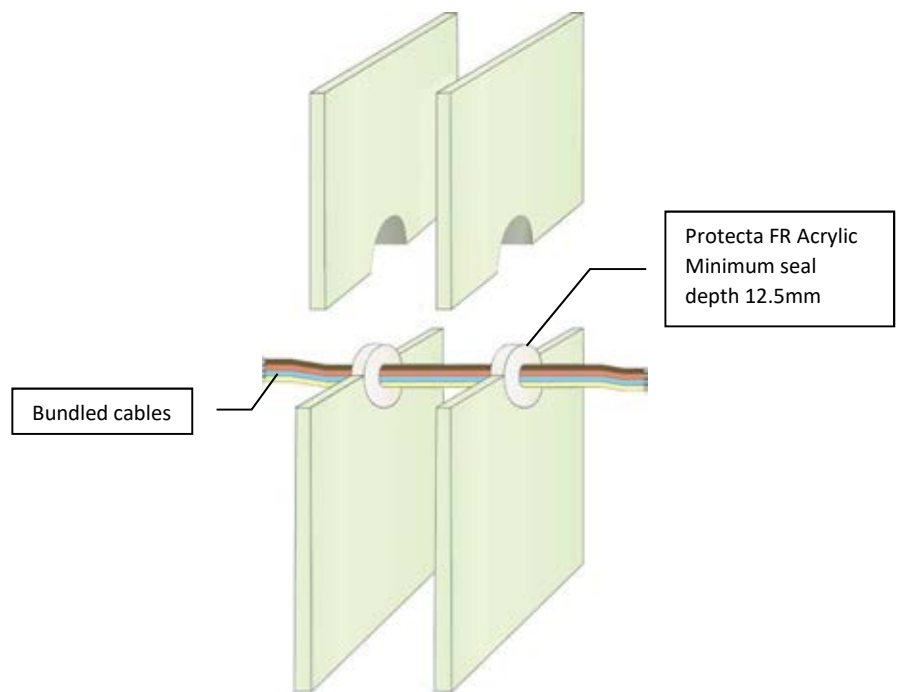
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Signed and approved:

Sheet size: <b>A4</b>	Drawn date & no: 8/4/18
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3. When installing the sealant in gypsum boards, the exposed edges of the board can be wetted with water, or Protecta® FR Acrylic diluted with water to prime the surfaces helping adhesion and preventing excessive joint shrinkage.
4. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



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Signed and approved:

Client:

Job Title:

<b>Products</b>	Protecta FR Acrylic
<b>Application</b>	Fire stopping of cables in flexible walls
<b>Construction</b>	Minimum wall thickness of 75 mm and comprise steel studs or timber studs* lined on both faces with minimum 1 layer of 12.5 mm thick boards

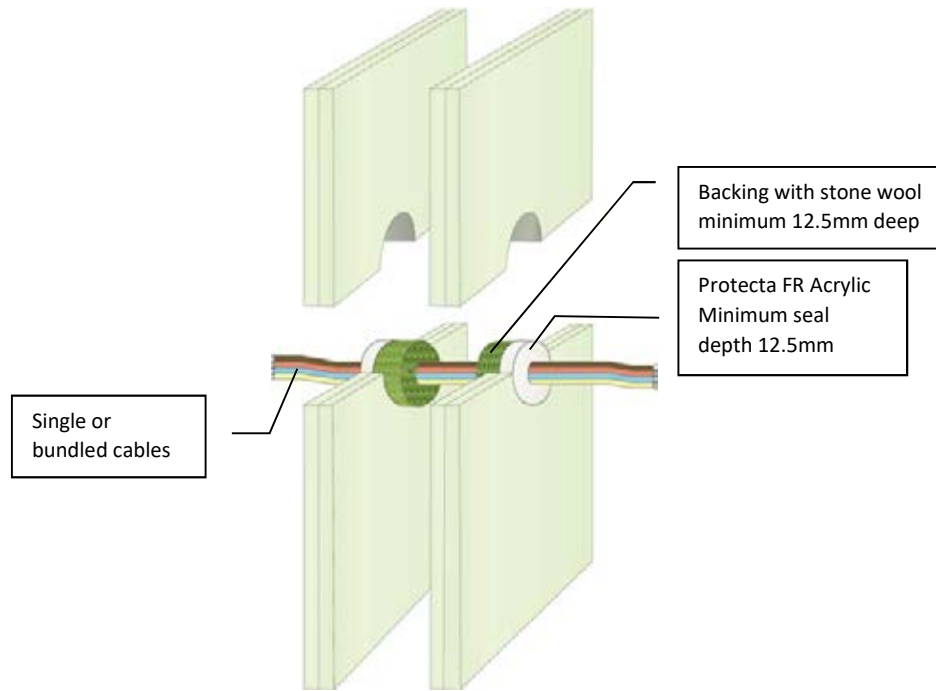
<b>Fire &amp; Sound classification</b>	
Cables ≤ Ø21mm in a bundle ≤ Ø 100mm in double sided seal in maximum aperture 150x150mm	EI 30 & E 45
Sound reduction (seal only)	Rw 62 dB

Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB  
 Tel: +44 (0) 148 4421036  
 Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

Sheet size: <b>A4</b>	Drawn date & no: 8/4/18
Scale: <b>NTS</b>	Drawn by: K.B

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3. When installing the sealant in gypsum boards, the exposed edges of the board can be wetted with water, or Protecta® FR Acrylic diluted with water to prime the surfaces helping adhesion and preventing excessive joint shrinkage.
4. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

<b>Products</b>	Protecta FR Acrylic Stone wool
<b>Application</b>	Fire stopping of cables in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards

<b>Fire &amp; Sound classification</b>	
Cables ≤ Ø21mm single or in a bundle ≤ Ø50mm in double sided seal in maximum aperture 300x300mm	
	EI 90 & E 120
Sound reduction (seal only)	
	Rw 62 dB

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Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: post.uk@polyseam.com



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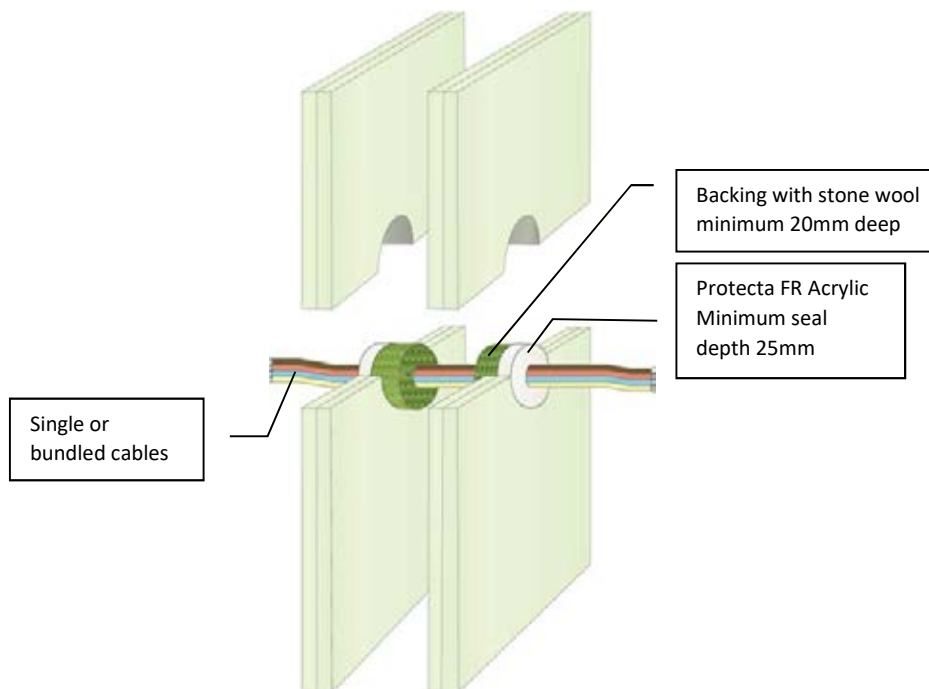
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Sheet size: <b>A4</b>	Drawn date & no: 13/8/19
Scale: <b>NTS</b>	Drawn by: K.B

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3. When installing the sealant in gypsum boards, the exposed edges of the board can be wetted with water, or Protecta® FR Acrylic diluted with water to prime the surfaces helping adhesion and preventing excessive joint shrinkage.
4. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of cables in flexible walls

**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**

Cables ≤ Ø21mm single or in a bundle  
≤ Ø100mm in double sided seal in maximum aperture 300x300mm

EI 120 & E 120

Sound reduction (seal only)

Rw 62 dB

**Protecta®**  
Polyseam Ltd, 15 St Andrews Road,  
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ETA 18/0904

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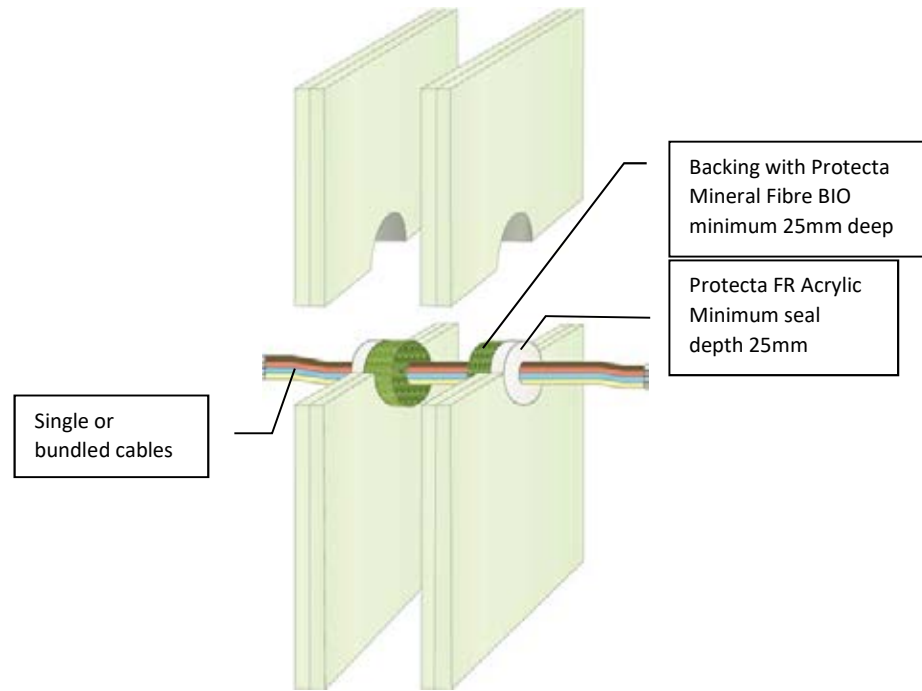
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Sheet size: **A4**      Drawn date & no: 20/4/15

Scale: **NTS**      Drawn by: K.B

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5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Protecta Mineral Fibre BIO

**Application** Fire stopping of cables in flexible walls

**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards.

**Fire & Sound classification**

Cables ≤ Ø80mm single or in a bundle  
≤ Ø100mm in double sided seal in maximum aperture 300x300mm

EI 60 & E 120

Sound reduction (seal only)

Rw 62 dB

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Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
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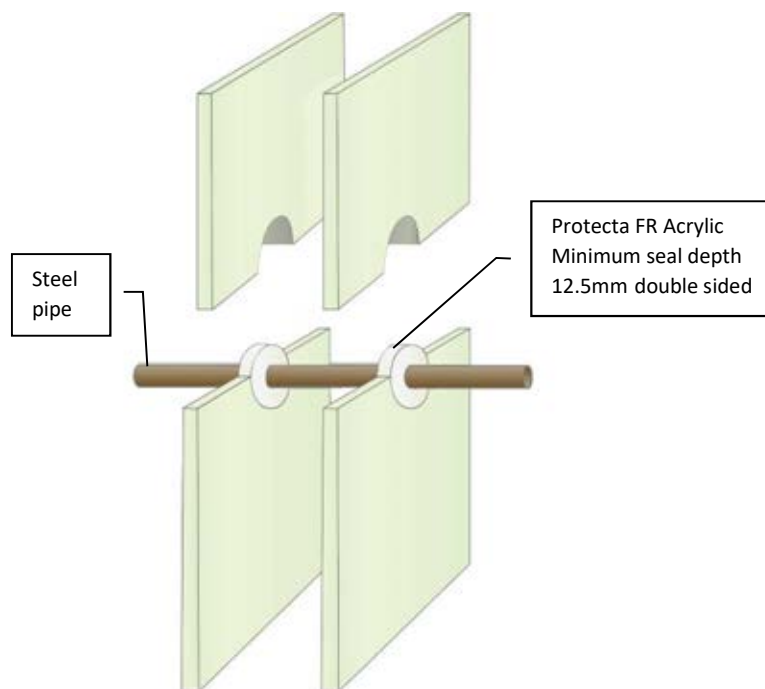
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3. As Protecta® FR Acrylic is water based, in cases where corrosion protection is a problem; some metals may require a barrier between the sealant and the metal surface prior to this installation.
4. When installing the sealant in gypsum boards, the exposed edges of the board can be wetted with water, or Protecta® FR Acrylic diluted with water to prime the surfaces helping adhesion and preventing excessive joint shrinkage.
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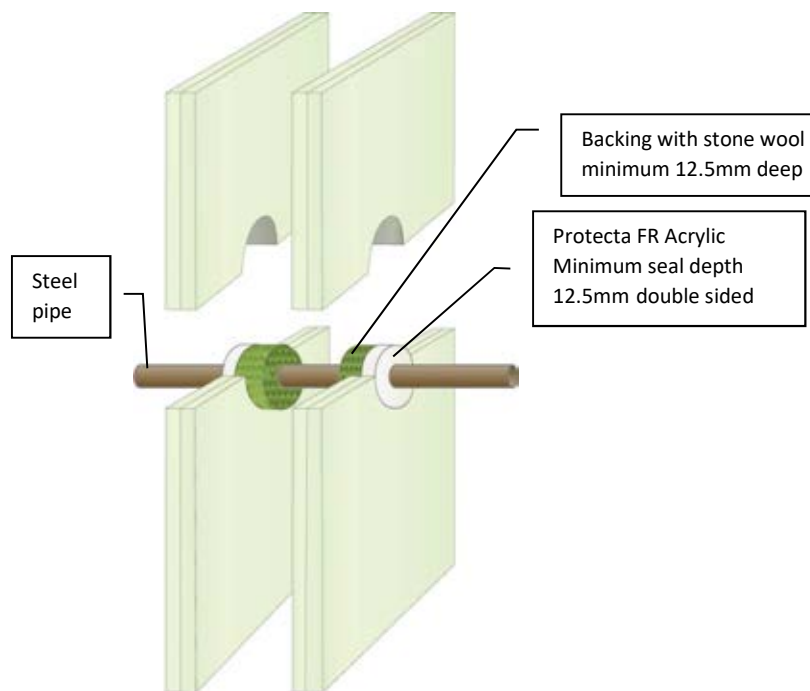
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Acrylic
<b>Application</b>	Fire stopping of steel pipes in flexible walls
<b>Construction</b>	Minimum wall thickness of 75 mm and comprise steel studs or timber studs* lined on both faces with minimum 1 layer of 12.5 mm thick boards
<b>Fire &amp; Sound classification</b>	
Steel pipe ≤ Ø22mm without pipe insulation in maximum aperture 150x150mm	
EI 30 C/U & E 60 C/U	
Sound reduction (seal only)	
Rw 62dB	
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
<b>A4</b>	8/4/18
Scale:	Drawn by:
<b>NTS</b>	K.B

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6. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
7. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
8. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of steel pipes in flexible walls

**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**

Steel pipe ≤ Ø30mm without pipe insulation in maximum aperture 300x300mm

EI 90 C/C & E 90 C/C

Sound reduction (seal only) Rw 62dB

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Polyseam Ltd, 15 St Andrews Road,  
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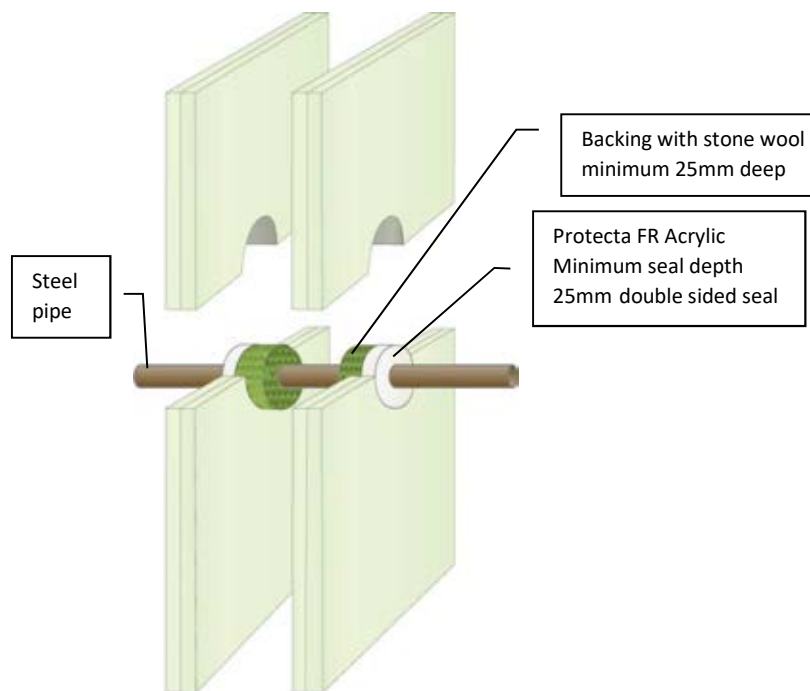
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6. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
7. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
8. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of steel pipes in flexible walls

**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**

Steel pipe Ø22 - Ø30mm without pipe insulation in maximum aperture 300x300mm

EI 120 C/C & E 120 C/C

Sound reduction (seal only) Rw 62dB

Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
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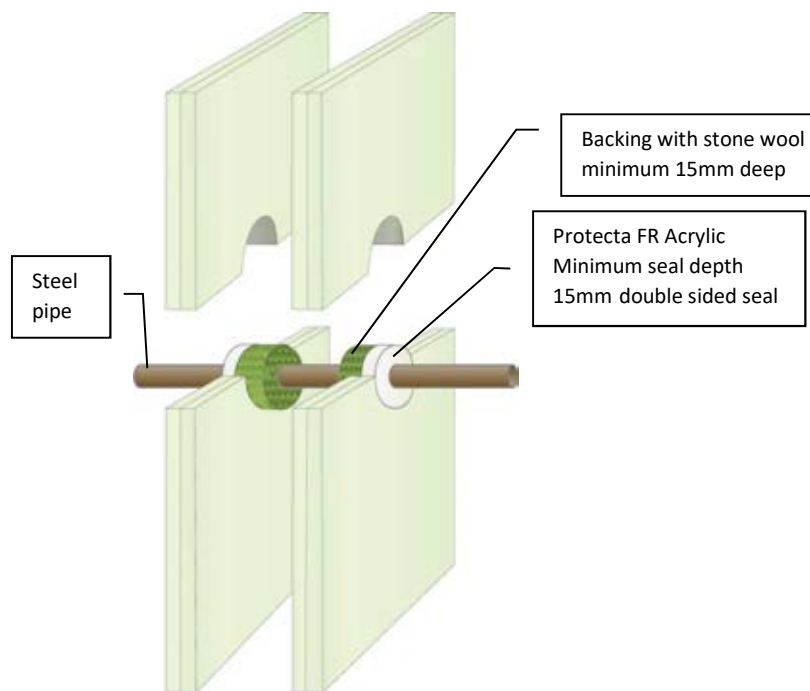
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6. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
7. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
8. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of steel pipes in flexible walls

**Construction** Minimum wall thickness of 120 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**

Steel pipe ≤ Ø324mm without pipe insulation in maximum aperture 300x300mm or Ø344mm

E 120 C/U

Sound reduction (seal only)

Rw 62dB

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Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)



ETA 18/0904

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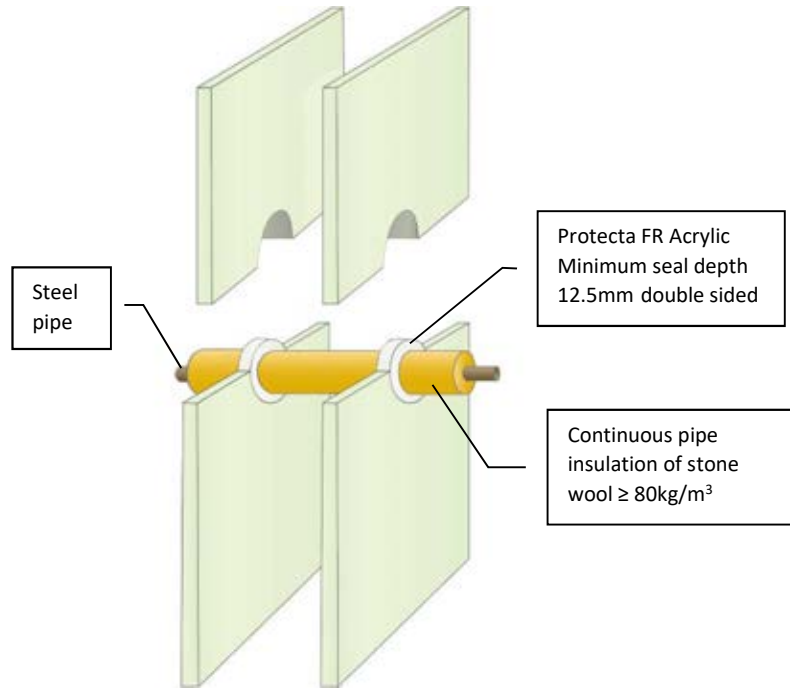
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Sheet size: **A4**      Drawn date & no: **13/8/19**

Scale: **NTS**      Drawn by: **K.B**

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5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

<b>Products</b>	Protecta FR Acrylic
<b>Application</b>	Fire stopping of steel pipes in flexible walls
<b>Construction</b>	Minimum wall thickness of 75 mm and comprise steel studs or timber studs* lined on both faces with minimum 1 layer of 12.5 mm thick boards.

<b>Fire &amp; Sound classification</b>	
Steel pipe ≤ Ø324mm with 20-30mm thick pipe insulation in maximum aperture 150x150mm or Ø344mm	
EI 45 C/U & E 60 C/U	
Sound reduction (seal only)	
Rw 62dB	

**Protecta®**  
 Polyseam Ltd, 15 St Andrews Road,  
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ETA 18/0904

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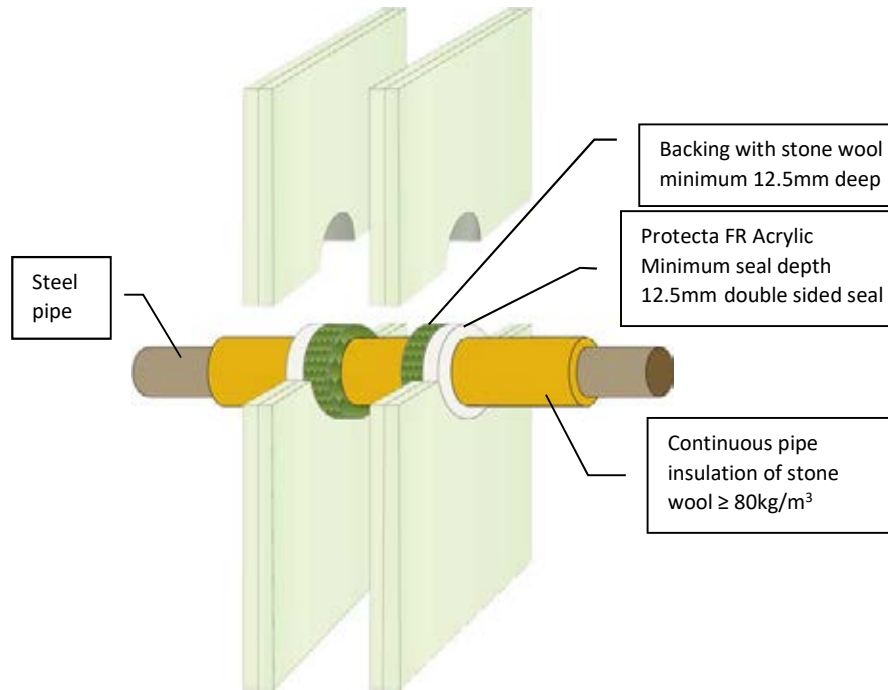
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Sheet size: <b>A4</b>	Drawn date & no: 8/4/18
Scale: <b>NTS</b>	Drawn by: K.B

Installation Instructions

1. Before installing Protecta® FR Acrylic ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Where Protecta® FR Acrylic is to be installed against surfaces that cannot tolerate direct contact; appropriate surface preparation should be made (contact Polyseam for guidance in these cases). For paints sensitive to sealing compounds, priming with a PVA primer is recommended.
3. When installing the sealant in gypsum boards, the exposed edges of the board can be wetted with water, or Protecta® FR Acrylic diluted with water to prime the surfaces helping adhesion and preventing excessive joint shrinkage.
4. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of steel pipes in flexible walls

**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards.

**Fire & Sound classification**  
Steel pipe ≤ Ø324mm with 20-80mm thick pipe insulation in maximum aperture 300x300mm or Ø504mm  
EI 90 C/U & E 120 C/U  
Sound reduction (seal only) Rw 62dB

Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: post.uk@polyseam.com



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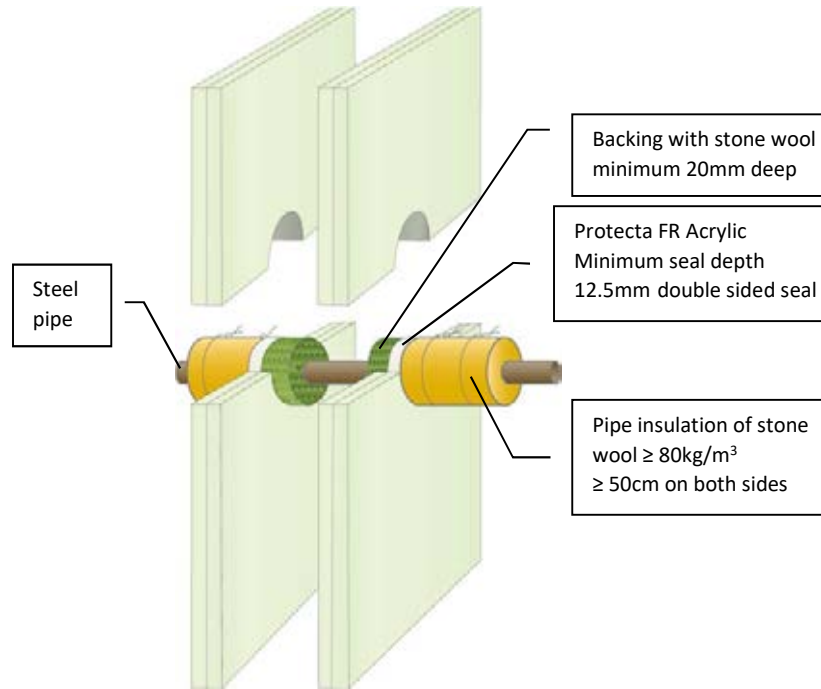
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Sheet size: **A4** Drawn date & no: 20/4/15

Scale: **NTS** Drawn by: **K.B**

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3. As Protecta® FR Acrylic is water based, in cases where corrosion protection is a problem; some metals may require a barrier between the sealant and the metal surface prior to this installation.
4. When installing the sealant in gypsum boards, the exposed edges of the board can be wetted with water, or Protecta® FR Acrylic diluted with water to prime the surfaces helping adhesion and preventing excessive joint shrinkage.
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8. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of steel pipes in flexible walls

**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**

Steel pipe ≤ Ø54mm with ≥ 20mm thick pipe insulation in maximum aperture 300x300mm  
EI 120 C/U & E 120 C/U

Steel pipe ≤ Ø219mm with ≥ 30mm thick pipe insulation in maximum aperture 300x300mm  
EI 90 C/U & E 120 C/U

Sound reduction (seal only) Rw 62dB

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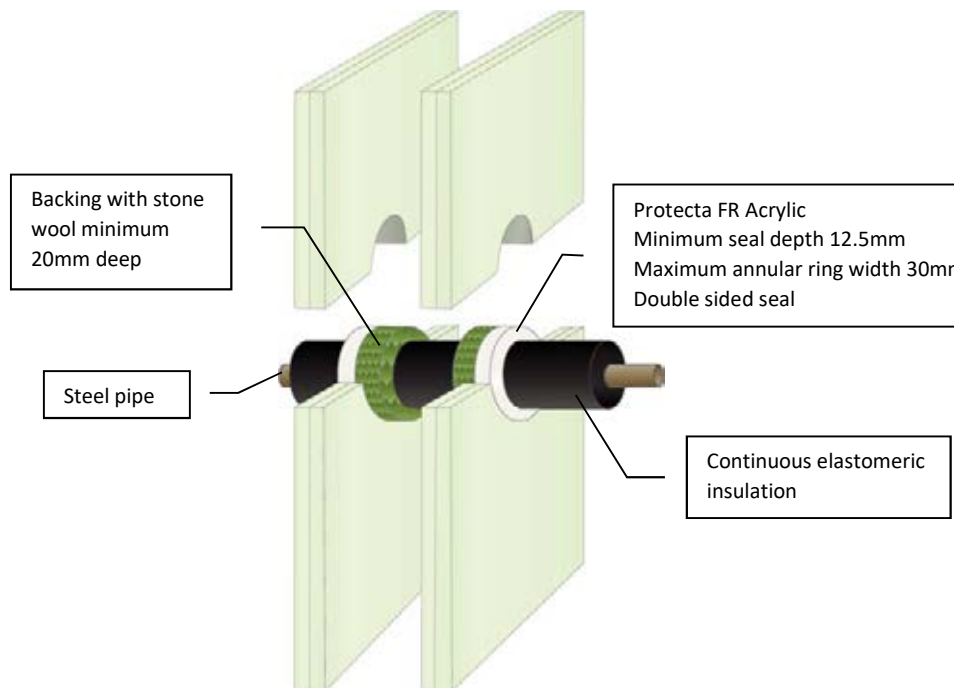
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7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of steel pipes in flexible walls

**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**  
Steel pipe ≤ Ø40mm with 13 – 19mm thick pipe insulation  
EI 120 C/C & E 120 C/C  
Sound reduction (seal only)  
Rw 62dB

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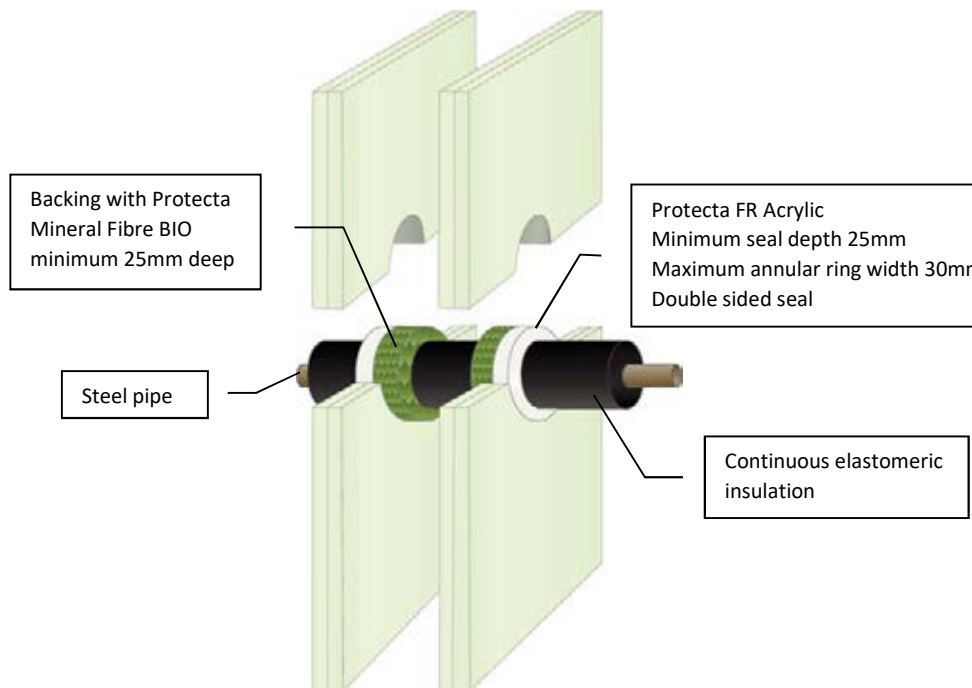
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5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Protecta Mineral Fibre BIO

**Application** Fire stopping of steel pipes in flexible walls

**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**  
Steel pipe ≤ Ø165mm with 13 – 19mm thick pipe insulation  
EI 60 C/C & E 120 C/C  
Sound reduction (seal only) Rw 62dB

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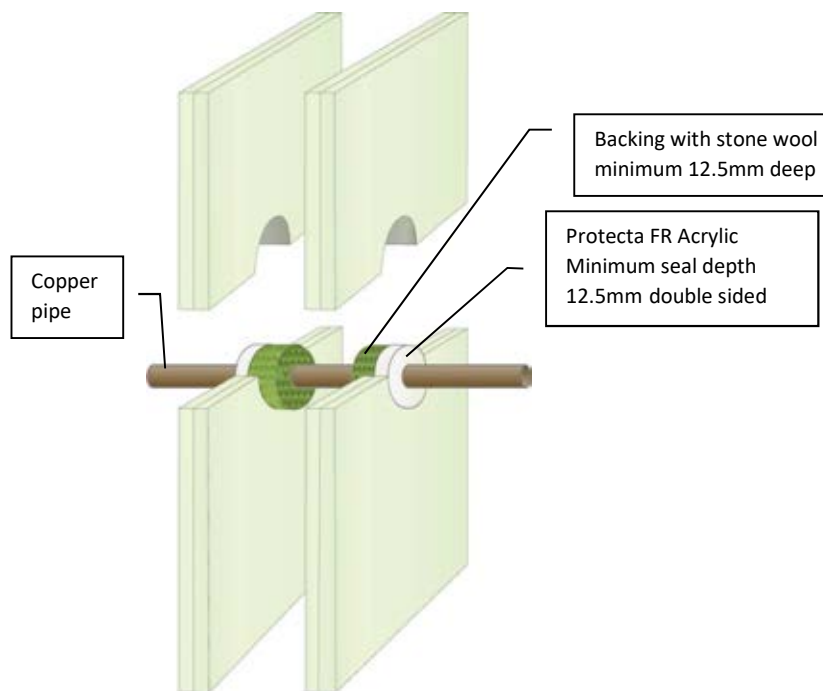
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4. When installing the sealant in gypsum boards, the exposed edges of the board can be wetted with water, or Protecta® FR Acrylic diluted with water to prime the surfaces helping adhesion and preventing excessive joint shrinkage.
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8. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of copper pipes in flexible walls

**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**

Copper pipe ≤ Ø12mm without pipe insulation in maximum aperture 300x300mm  
EI 60 C/C & E 90 C/C

Copper pipe Ø13-Ø22mm without pipe insulation in maximum aperture 300x300mm  
EI 30 C/C & E 90 C/C

Sound reduction (seal only) Rw 62dB

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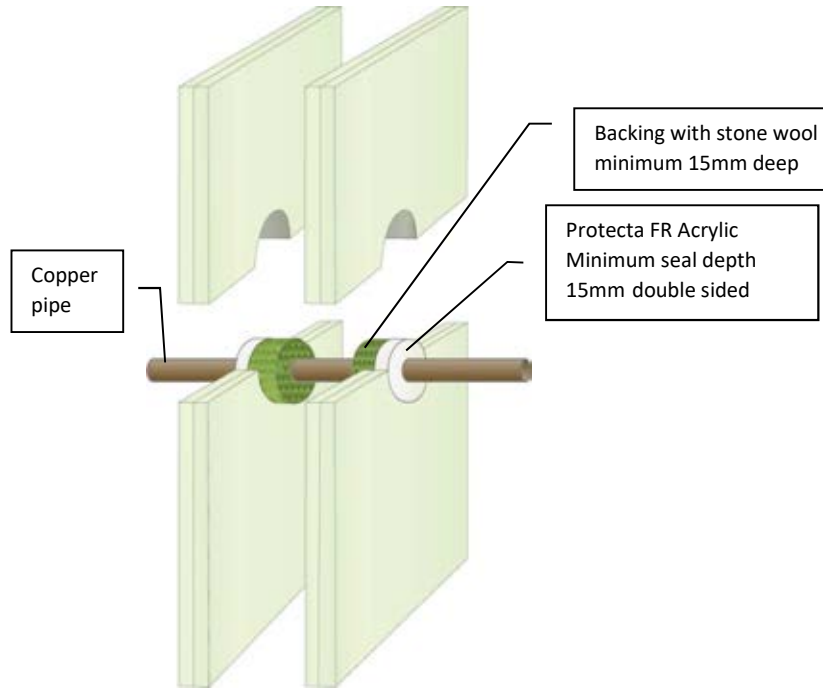
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8. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of copper pipes in flexible walls

**Construction** Minimum wall thickness of 120 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**

Copper pipe ≤ Ø54mm without pipe insulation in maximum aperture 300x300mm  
E 120 C/C

Sound reduction (seal only)  
Rw 62dB

**Protecta®**  
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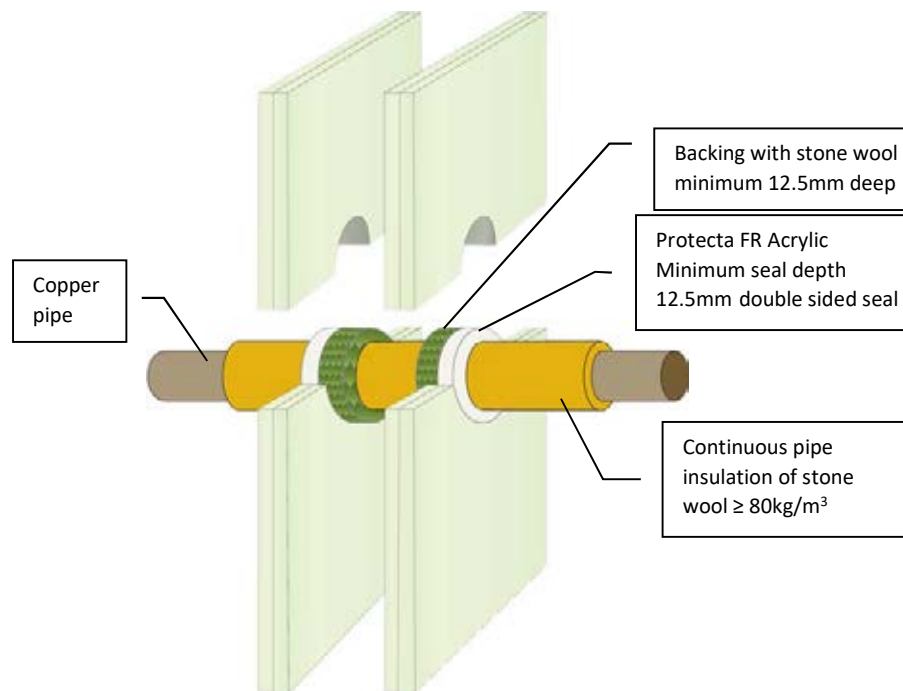
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4. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of copper pipes in flexible walls

**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**  
Copper pipe ≤ Ø54mm with 20-80mm thick pipe insulation in maximum aperture 300x300mm or Ø504mm  
EI 60 C/C & E 120 C/C  
Sound reduction (seal only) Rw 62dB



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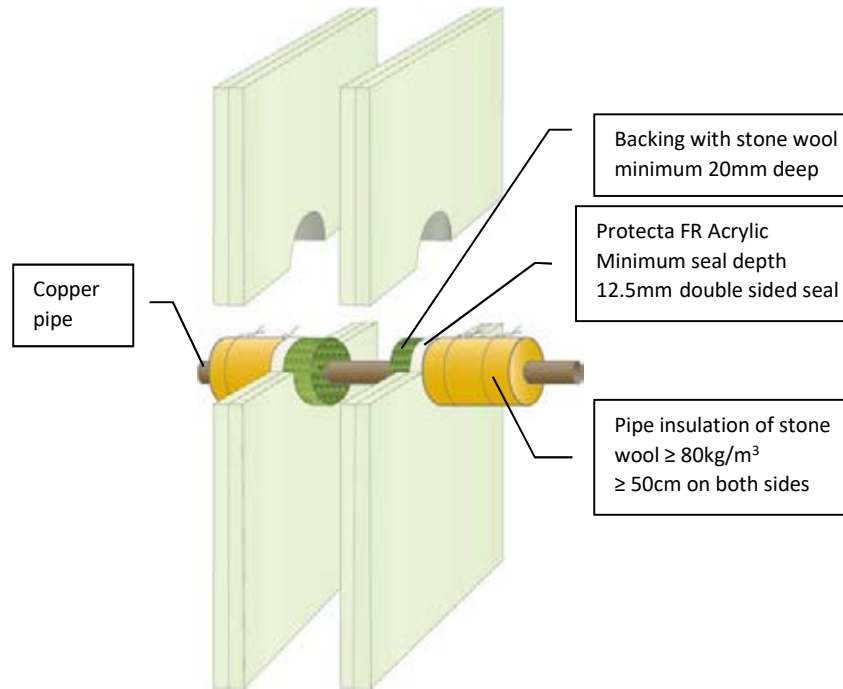
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8. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of copper pipes in flexible walls

**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**  
Copper pipe ≤ Ø54mm with ≥ 20mm thick pipe insulation in maximum aperture 300x300mm  
EI 120 C/U & E 120 C/U  
Sound reduction (seal only) Rw 62dB

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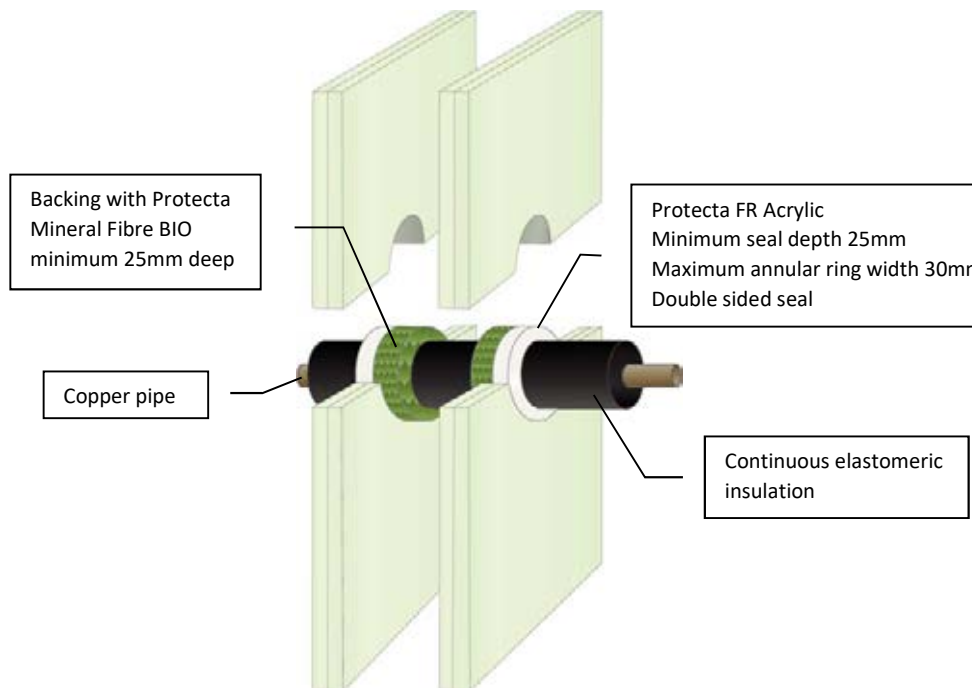
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Client:

Job Title:

**Products** Protecta FR Acrylic  
Protecta Mineral Fibre BIO

**Application** Fire stopping of copper pipes in flexible walls

**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**

Copper pipe ≤ Ø12mm with 9mm thick pipe insulation	EI 120 C/C & E 120 C/C
Copper pipe ≤ Ø54mm with 9 – 13mm thick pipe insulation	EI 60 C/C & E 120 C/C
Copper pipe ≤ Ø54mm with 14 – 25mm thick pipe insulation	EI 60 C/C & E 60 C/C
Sound reduction (seal only)	Rw 62dB



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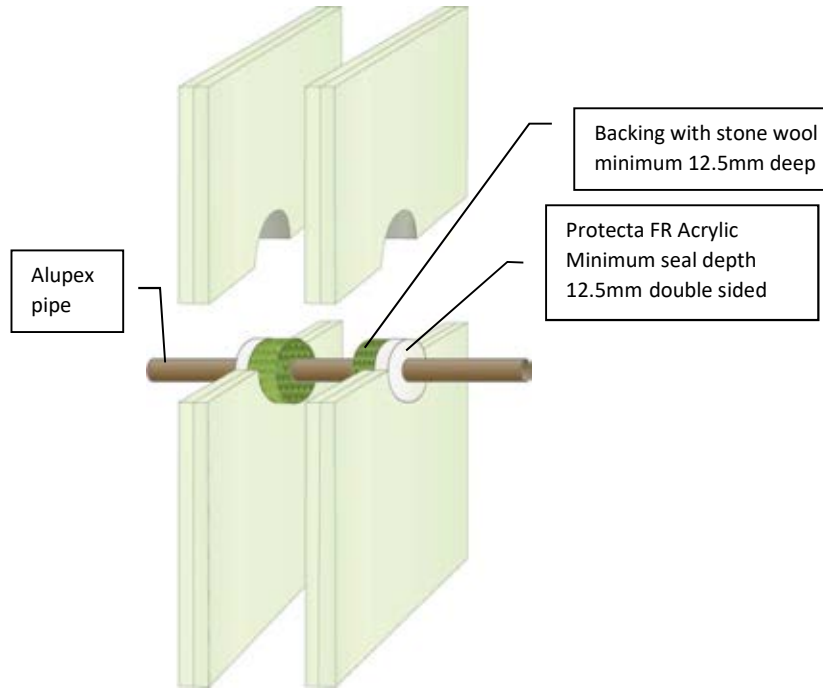
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Client:

Job Title:

<b>Products</b>	Protecta FR Acrylic Stone wool
<b>Application</b>	Fire stopping of alupex pipes in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards

<b>Fire &amp; Sound classification</b>	
Alupex pipe ≤ Ø20mm without pipe insulation in maximum aperture 300x300mm	
EI 120 C/C & E 120 C/C	
Sound reduction (seal only)	Rw 62dB

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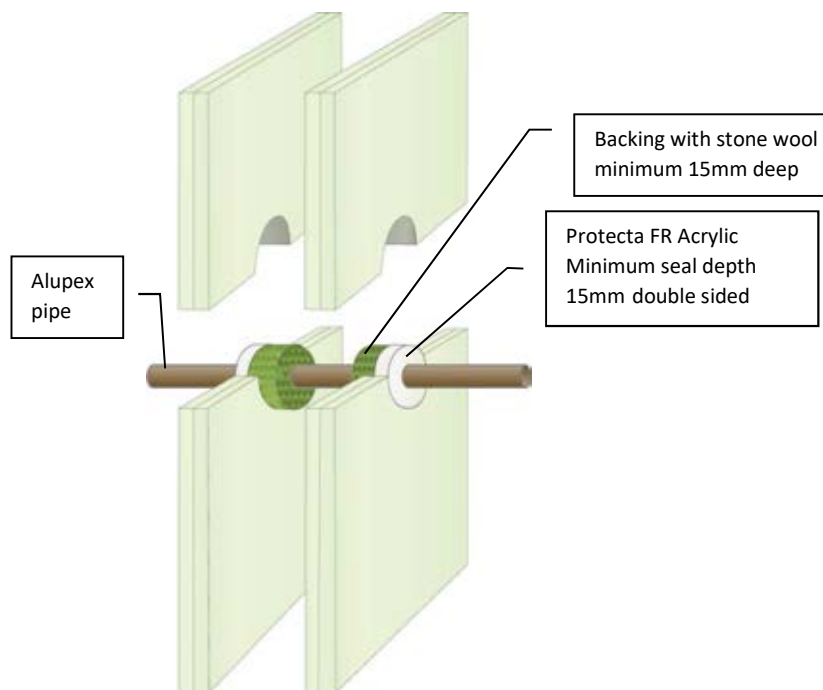
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

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Sheet size: <b>A4</b>	Drawn date & no: 8/4/18
Scale: <b>NTS</b>	Drawn by: K.B

Installation Instructions

1. Before installing Protecta® FR Acrylic ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Where Protecta® FR Acrylic is to be installed against surfaces that cannot tolerate direct contact; appropriate surface preparation should be made (contact Polyseam for guidance in these cases). For paints sensitive to sealing compounds, priming with a PVA primer is recommended.
3. As Protecta® FR Acrylic is water based, in cases where corrosion protection is a problem; some metals may require a barrier between the sealant and the metal surface prior to this installation.
4. When installing the sealant in gypsum boards, the exposed edges of the board can be wetted with water, or Protecta® FR Acrylic diluted with water to prime the surfaces helping adhesion and preventing excessive joint shrinkage.
5. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
6. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
7. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
8. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of alupex pipes in flexible walls

**Construction** Minimum wall thickness of 120 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**

Alupex pipe ≤ Ø75mm without pipe insulation in maximum aperture 300x300mm

EI 30 C/C & E 120 C/C

Sound reduction (seal only) Rw 62dB

Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: post.uk@polyseam.com



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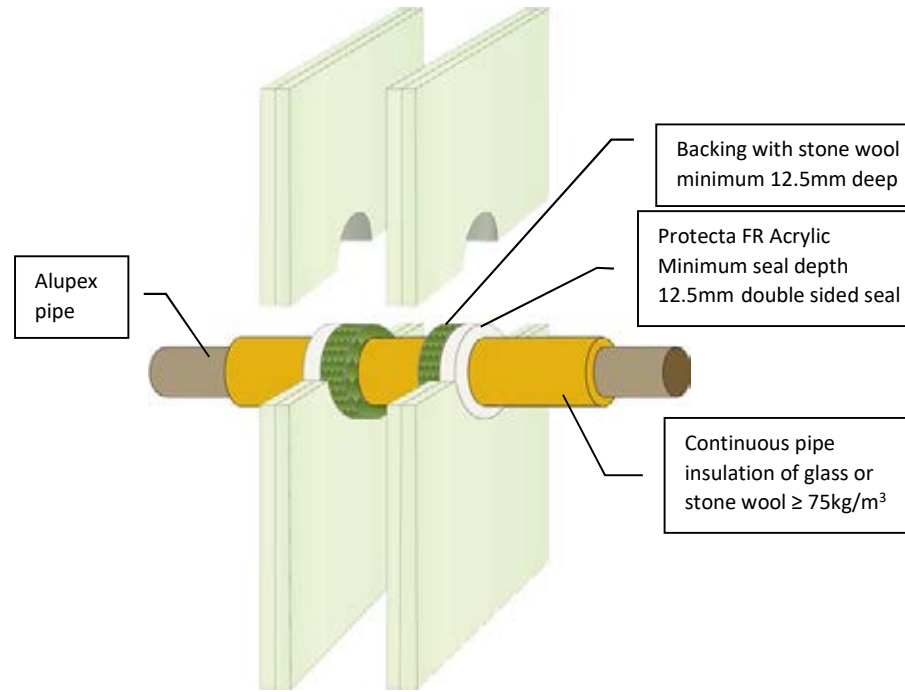
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Scale: **NTS**      Drawn by: **K.B**

Installation Instructions

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2. Where Protecta® FR Acrylic is to be installed against surfaces that cannot tolerate direct contact; appropriate surface preparation should be made (contact Polyseam for guidance in these cases). For paints sensitive to sealing compounds, priming with a PVA primer is recommended.
3. When installing the sealant in gypsum boards, the exposed edges of the board can be wetted with water, or Protecta® FR Acrylic diluted with water to prime the surfaces helping adhesion and preventing excessive joint shrinkage.
4. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of alupex pipes in flexible walls

**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**

Alupex pipe ≤ Ø75mm with 20-50mm thick pipe insulation in maximum aperture 300x300mm or Ø504mm

EI 120 C/C & E 120 C/C

Sound reduction (seal only)

Rw 62dB

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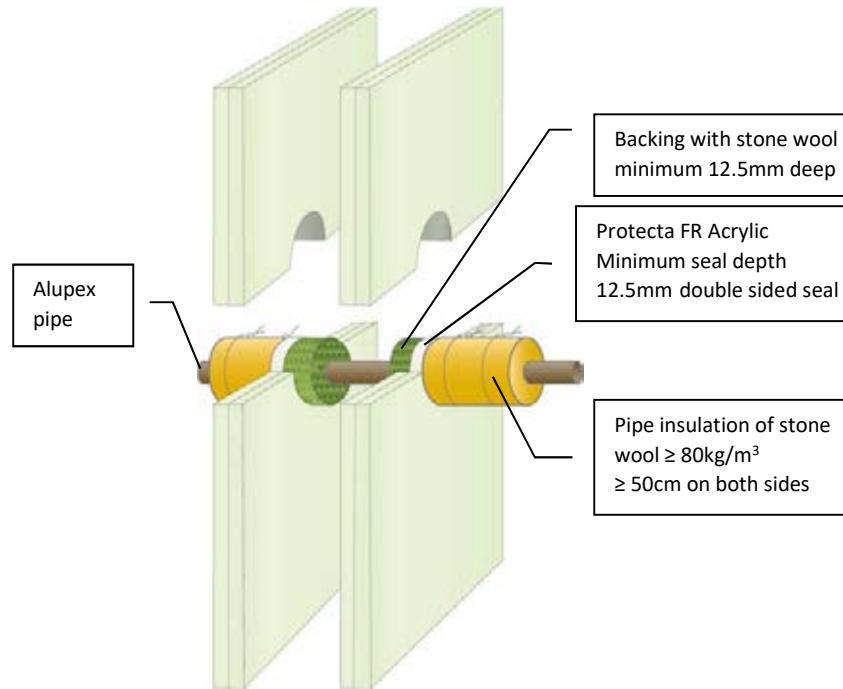
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3. As Protecta® FR Acrylic is water based, in cases where corrosion protection is a problem; some metals may require a barrier between the sealant and the metal surface prior to this installation.
4. When installing the sealant in gypsum boards, the exposed edges of the board can be wetted with water, or Protecta® FR Acrylic diluted with water to prime the surfaces helping adhesion and preventing excessive joint shrinkage.
5. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
6. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
7. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
8. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Stone wool

**Application** Fire stopping of alupex pipes in flexible walls

**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**  
Alupex pipe ≤ Ø75mm with ≥ 20mm thick pipe insulation in maximum aperture 300x300mm  
  
EI 120 C/C & E 120 C/C  
  
Sound reduction (seal only)  
  
Rw 62dB

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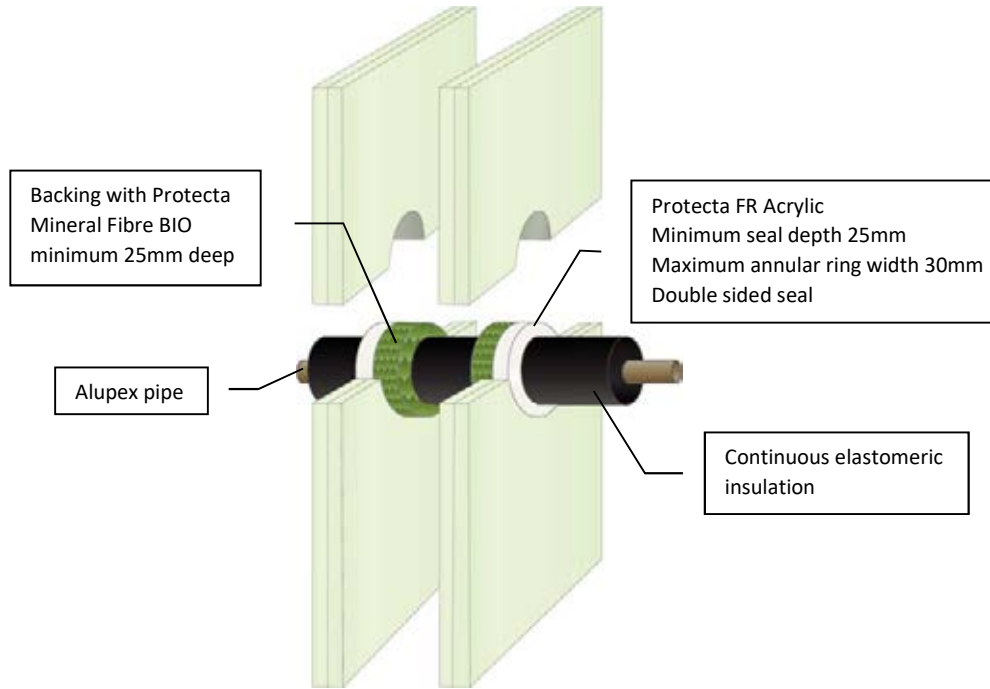
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Installation Instructions

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3. When installing the sealant in gypsum boards, the exposed edges of the board can be wetted with water, or Protecta® FR Acrylic diluted with water to prime the surfaces helping adhesion and preventing excessive joint shrinkage.
4. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Acrylic  
Protecta Mineral Fibre BIO

**Application** Fire stopping of alupex pipes in flexible walls

**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**

Alupex pipe ≤ Ø16mm with 9mm thick pipe insulation EI 120 C/C & E 120 C/C

Alupex pipe ≤ Ø75mm with 9 – 25mm thick pipe insulation EI 60 C/C & E 60 C/C

Sound reduction (seal only) Rw 62dB

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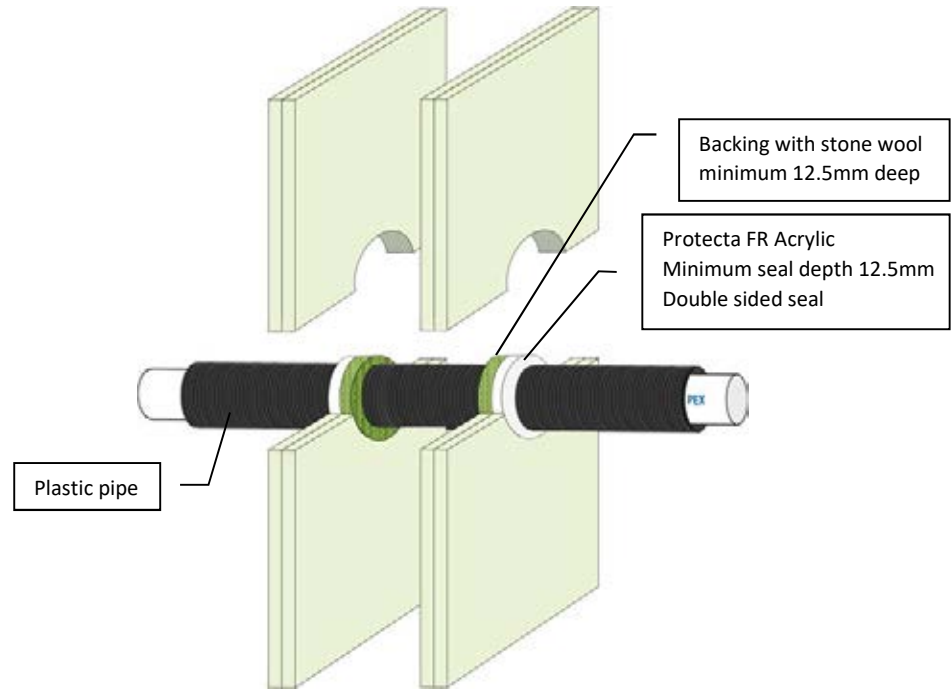
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3. When installing the sealant in gypsum boards, the exposed edges of the board can be wetted with water, or Protecta® FR Acrylic diluted with water to prime the surfaces helping adhesion and preventing excessive joint shrinkage.
4. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:	
Job Title:	
<b>Products</b>	Protecta FR Acrylic
<b>Application</b>	Fire stopping of PEX plastic pipes in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards.
<b>Fire &amp; Sound classification</b>	
PEX pipe-in-pipe ≤ Ø25mm and maximum annular ring width 30mm EI 120 C/C & E 120 C/C	
Sound reduction (seal only) Rw 62dB	
	
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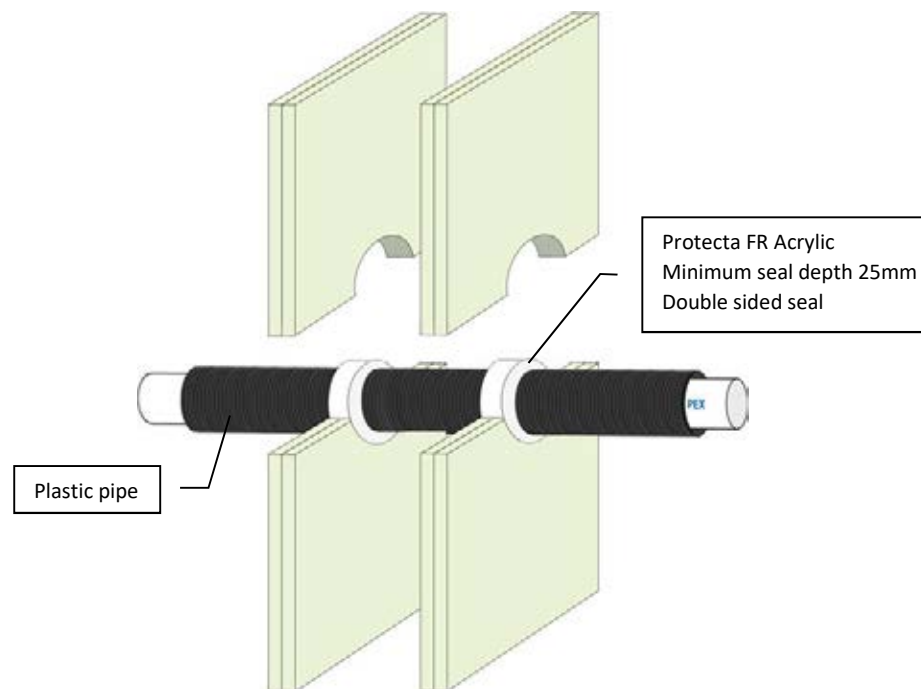
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3. When installing the sealant in gypsum boards, the exposed edges of the board can be wetted with water, or Protecta® FR Acrylic diluted with water to prime the surfaces helping adhesion and preventing excessive joint shrinkage.
4. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

<b>Products</b>	Protecta FR Acrylic
<b>Application</b>	Fire stopping of PEX plastic pipes in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards.

<b>Fire &amp; Sound classification</b>	
PEX pipe-in-pipe ≤ Ø54mm and maximum annular ring width 30mm	
	EI 45 C/C & E 60 C/C
Sound reduction (seal only)	
	Rw 62dB

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 Huddersfield, West Yorkshire, HD1 6SB  
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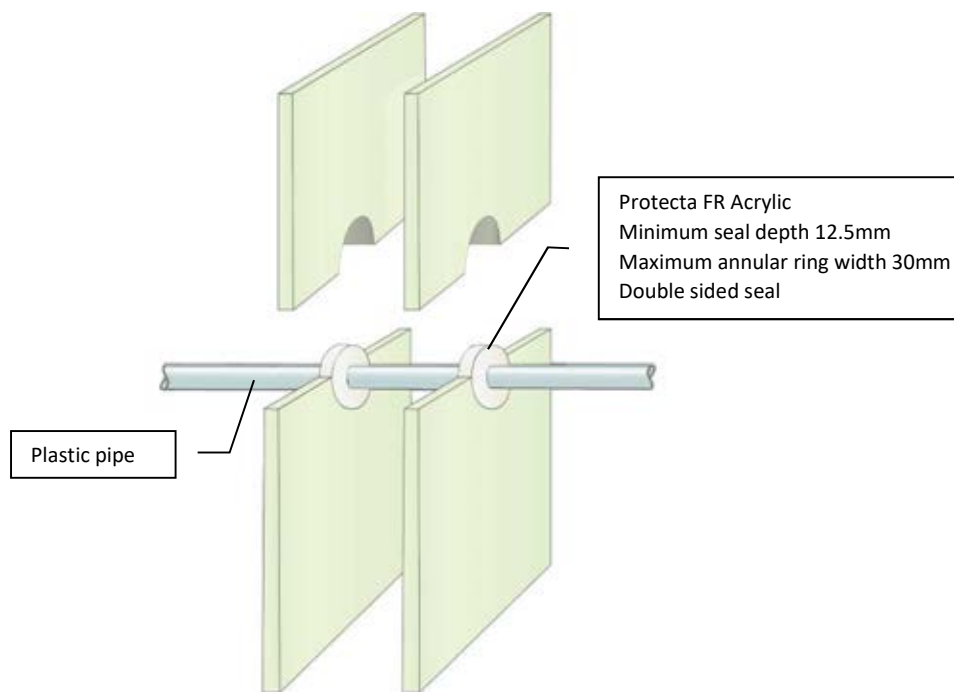
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3. When installing the sealant in gypsum boards, the exposed edges of the board can be wetted with water, or Protecta® FR Acrylic diluted with water to prime the surfaces helping adhesion and preventing excessive joint shrinkage.
4. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:	
Job Title:	
<b>Products</b>	Protecta FR Acrylic
<b>Application</b>	Fire stopping of plastic pipes in flexible walls
<b>Construction</b>	Minimum wall thickness of 75 mm and comprise steel studs or timber studs* lined on both faces with minimum 1 layer of 12.5 mm thick boards
<b>Fire &amp; Sound classification</b>	
PE, ABS or SAN+PVC pipe ≤ Ø32mm with wall thickness 2.0 – 3.0mm EI 30 U/C & E 30 U/C	
PP pipe ≤ Ø32mm with wall thickness 2.3 – 4.4mm EI 30 U/C & E 30 U/C	
Sound reduction (seal only) Rw 62dB	
	
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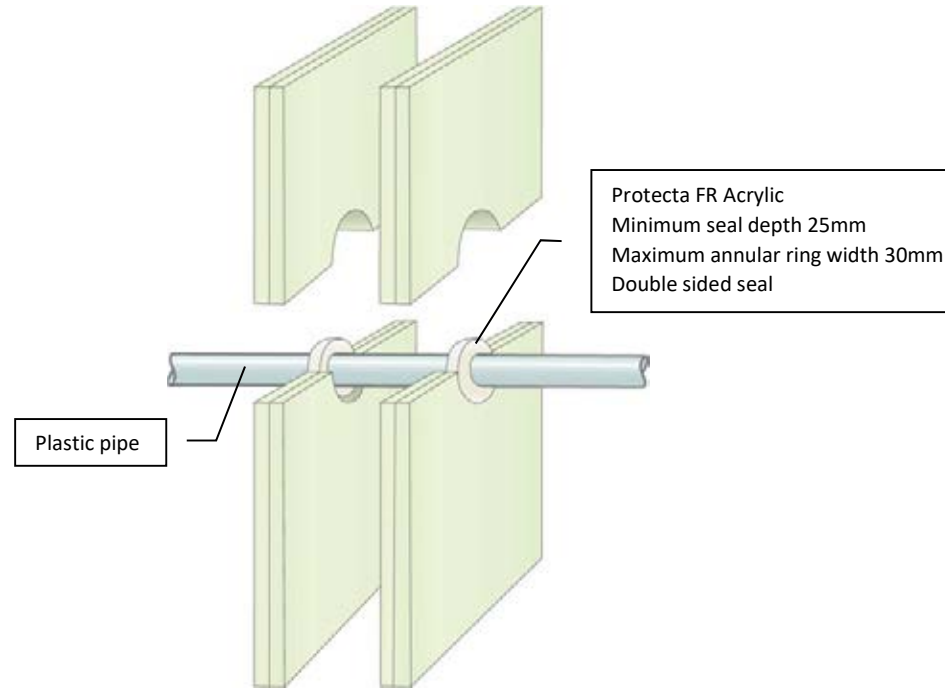
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3. When installing the sealant in gypsum boards, the exposed edges of the board can be wetted with water, or Protecta® FR Acrylic diluted with water to prime the surfaces helping adhesion and preventing excessive joint shrinkage.
4. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

<b>Products</b>	Protecta FR Acrylic
<b>Application</b>	Fire stopping of plastic pipes in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**

PVC-U or PVC-C pipe ≤ Ø32mm with wall thickness 1.0-1.6mm	EI 120 C/C & E 120 C/C
PVC-U or PVC-C pipe ≤ Ø32mm with wall thickness 1.0-2.4mm	EI 90 U/C & E 120 U/C
PE, ABS or SAN+PVC pipe Ø20mm with wall thickness 2.0mm	EI 120 U/C & E 120 U/C
PE, ABS or SAN+PVC pipe ≤ Ø32mm with wall thickness 2.0-3.0mm	EI 90 C/C & E 90 C/C
PP pipe Ø20mm with wall thickness 2.2mm	EI 120 U/C & E 120 U/C
PP pipe ≤ Ø32mm with wall thickness 1.8-4.4mm	EI 60 C/C & E 60 C/C
Sound reduction (seal only)	Rw 62dB



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 Polyseam Ltd, 15 St Andrews Road,  
 Huddersfield, West Yorkshire, HD1 6SB  
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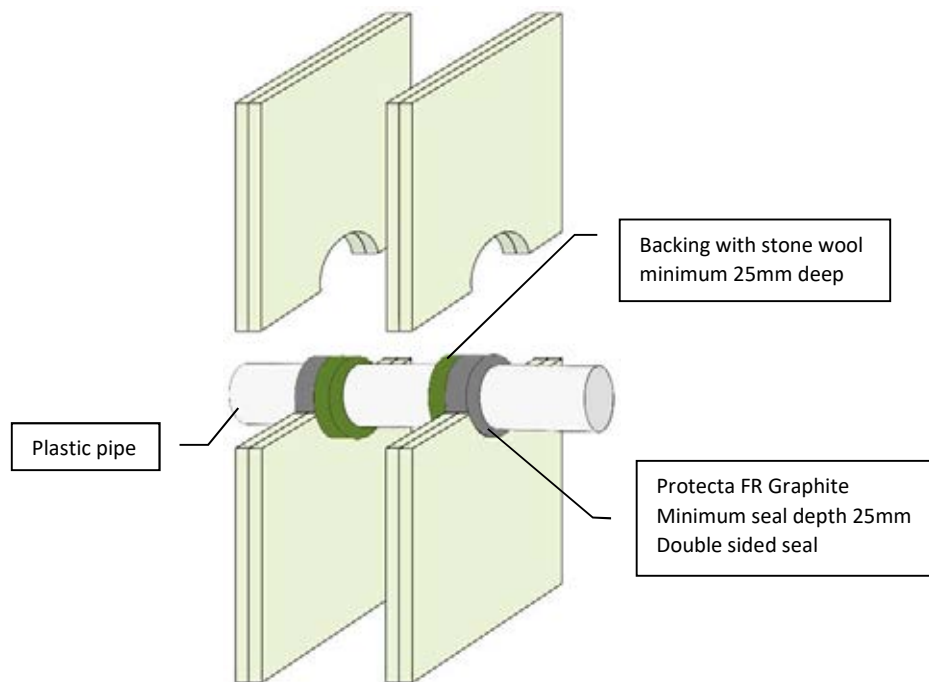
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Installation Instructions

1. Before installing Protecta® FR Graphite ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
3. Fill the gap or joint with Protecta® FR Graphite to the required depth.
4. Apply the sealant generously avoiding air bubbles. Finish the bead with a moist spatula or pallet knife. Avoid excessive tooling/smoothing as this may make the seal surface wet and soft.
5. Protecta® FR Graphite can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Graphite  
Stone wool  
**Application** Fire stopping of plastic pipes in insulated flexible walls  
**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**  
PVC-U or PVC-C pipe ≤ 110 mm diameter with wall thickness 1.9-6.6mm in seal widths between 10 and 30mm EI 120 U/C  
PE, ABS or SAN+PVC pipe ≤ 40 mm diameter with wall thickness 2.4-3.7mm in seal widths between 10 and 30mm EI 120 U/C  
PE, ABS or SAN+PVC pipe ≤ 110 mm diameter with wall thickness 2.4-4.2mm in seal widths between 10 and 30mm EI 60 U/C  
PE, ABS or SAN+PVC pipe ≤ 110 mm diameter with wall thickness 4.3-10.0mm in seal widths between 10 and 30mm EI 90 U/C & E 120 U/C  
Sound reduction (seal only) Rw 53dB



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 Polyseam Ltd, 15 St Andrews Road,  
 Huddersfield, West Yorkshire, HD1 6SB  
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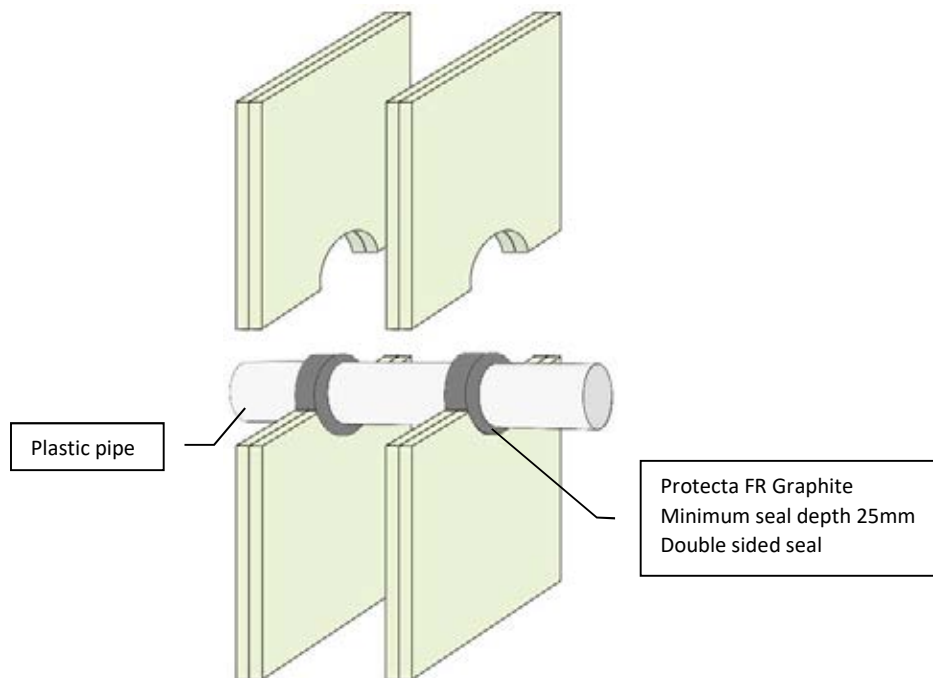
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Scale:	Drawn by:
<b>NTS</b>	K.B

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2. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
3. Fill the gap or joint with Protecta® FR Graphite to the required depth.
4. Apply the sealant generously avoiding air bubbles. Finish the bead with a moist spatula or pallet knife. Avoid excessive tooling/smoothing as this may make the seal surface wet and soft.
5. Protecta® FR Graphite can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

**Products** Protecta FR Graphite  
Stone wool  
**Application** Fire stopping of plastic pipes in flexible walls  
**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**

PVC-U or PVC-C pipe ≤ 160 mm diameter with wall thickness 3.2-9.5mm in seal widths between 10 and 30mm EI 30 U/C

PVC-U or PVC-C pipe ≤ 160 mm diameter with wall thickness 9.5mm in seal widths between 10 and 30mm EI 90 U/C

PP pipe ≤ 110 mm diameter with wall thickness 1.8-6.3mm in seal widths between 10 and 30mm EI 60 U/C

Sound reduction (seal only) Rw 53dB

  
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 Email: post.uk@polyseam.com



ETA 18/0626

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Signed and approved:

Sheet size: **A4**      Drawn date & no: 11/11/18

Scale: **NTS**      Drawn by: K.B

### Installation Instructions

1. Before fitting the collars ensure that the gaps between the pipe and the separating element are sealed with minimum 25mm deep Protecta FR Acrylic to cover the opening.
2. Place a suitable collar around the pipe and ensure that the collar shell and fixing lugs are positioned tightly to the surface of the wall, so that the fixings can be inserted fully.
3. Where the surface is uneven, apply a sealing bead of Protecta® FR Acrylic between the wall and the collar shell.
4. Attach the collar with  $\geq \text{Ø}4\text{mm}$  drywall, wood screws or anchors with a length suitable for the number of boards that form the wall.

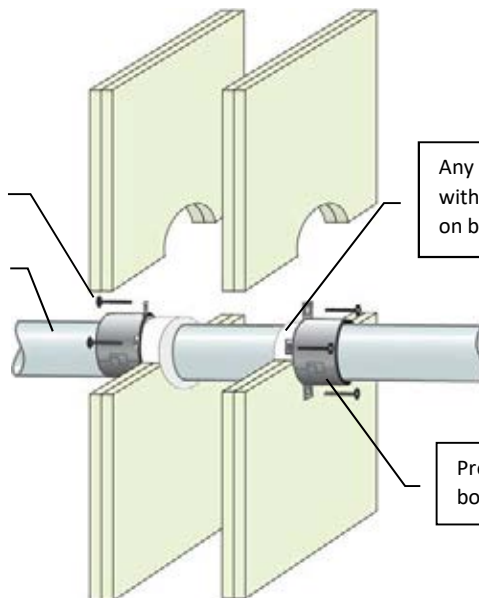
Apertures with minimum 8mm annular width around services

Drywall, wood screws or anchors of steel

Plastic pipe

Any gaps must be sealed with Protecta FR Acrylic on both sides

Protecta FR Collar to both sides of the wall



Services	Minimum Collar Height	Classification
$\leq \text{Ø}50\text{mm}$ PVC-U & PVC-C	30mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 90)
$\leq \text{Ø}110\text{mm}$ PVC-U & PVC-C	30mm	EI 60 C/C, EI 60 U/C
$\leq \text{Ø}140\text{mm}$ PVC-U & PVC-C	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 90)
$\leq \text{Ø}160\text{mm}$ PVC-U & PVC-C	60mm	EI 90 C/C, EI 90 U/C, EI 60 C/U, EI 60 U/U
$\text{Ø}315 \times 9.2\text{mm}$ PVC-U & PVC-C	75mm	EI 60 C/C
$\leq \text{Ø}50\text{mm}$ PE, ABS & SAN+PVC	30mm	EI 60 C/C, EI 60 U/C (E 90)
$\leq \text{Ø}50\text{mm}$ PE, ABS & SAN+PVC	50mm	EI 90 C/C, EI 90 U/C, EI 90 C/U, EI 90 U/U (E 120)
$\leq \text{Ø}110\text{mm}$ PE, ABS & SAN+PVC	30mm	EI 60 C/C, EI 60 U/C
$\leq \text{Ø}110\text{mm}$ PE, ABS & SAN+PVC	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 90)
$\leq \text{Ø}140\text{mm}$ PE, ABS & SAN+PVC	60mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 90)
$\text{Ø}160\text{mm}$ PE, ABS & SAN+PVC	60mm	EI 90 C/C, EI 90 U/C, EI 90 C/U, EI 90 U/U
$\text{Ø}200 \times 18.2\text{mm}$ PE, ABS & SAN+PVC	75mm	EI 60 C/C
$\text{Ø}250 \times 22.7\text{mm}$ PE, ABS & SAN+PVC	75mm	EI 60 C/C
$\leq \text{Ø}50\text{mm}$ PP	30mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 90)
$\leq \text{Ø}110\text{mm}$ PP	30mm	EI 60 C/C, EI 60 U/C (E 90)
$\leq \text{Ø}110\text{mm}$ PP	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 90)
$\leq \text{Ø}160\text{mm}$ PP	60mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U



ETA 18/0854

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Signed and approved:

Client:

Job Title:

**Products** Protecta FR Collar  
Protecta FR Acrylic

**Application** Fire stopping of plastic pipes in flexible walls

**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

### Fire & Sound classification

Fire classifications in table on the left. For full specifications, please refer to the Installation Instructions.

Sound reduction (seal only)

Rw 58dB



# Protecta®

Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB

Tel: +44 (0) 148 4421036

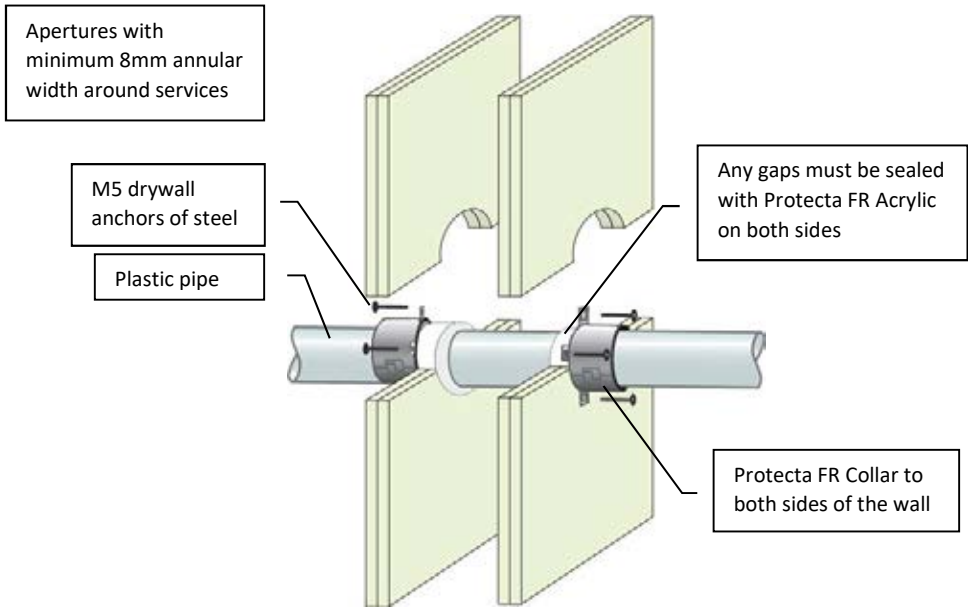
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

Sheet size: **A4**  
Drawn date & no: 20/8/19

Scale: **NTS**  
Drawn by: K.B

Installation Instructions

1. Before fitting the collars ensure that the gaps between the pipe and the separating element are sealed with minimum 25mm deep Protecta FR Acrylic to cover the opening.
2. Place a suitable collar around the pipe and ensure that the collar shell and fixing lugs are positioned tightly to the surface of the wall, so that the fixings can be inserted fully.
3. Where the surface is uneven, apply a sealing bead of Protecta® FR Acrylic between the wall and the collar shell.
4. Attach the collar with M5 drywall anchors with a length suitable for the number of boards that form the wall.



Services	Minimum Collar Height	Classification
≤ Ø110mm PVC-U & PVC-C	50mm	EI 120 C/C
≤ Ø160mm PVC-U & PVC-C	60mm	EI 120 C/C
≤ Ø50mm PE, ABS & SAN+PVC	50mm	EI 120 C/C
≤ Ø110mm PE, ABS & SAN+PVC	50mm	EI 90 C/C (E 120)
Ø110x3.4mm PE, ABS & SAN+PVC	50mm	EI 120 C/C
≤ Ø160mm PE, ABS & SAN+PVC	60mm	EI 90 C/C
Ø160x9.5mm PE, ABS & SAN+PVC	60mm	EI 120 C/C
≤ Ø50mm PP	50mm	EI 120 C/C
≤ Ø110mm PP	50mm	EI 90 C/C (E 120)
≤ Ø140mm PP	60mm	EI 90 C/C (E 120)
Ø160mm PP	60mm	EI 120 C/C

Client:

Job Title:

**Products** Protecta FR Collar  
Protecta FR Acrylic

**Application** Fire stopping of plastic pipes in 2 hour fire rated flexible walls

**Construction** Minimum wall thickness of 120 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**

Fire classifications in table on the left. For full specifications, please refer to the Installation Instructions.

Sound reduction (seal only) Rw 58dB

**Protecta**<sup>®</sup>

Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: post.uk@polyseam.com



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Signed and approved:

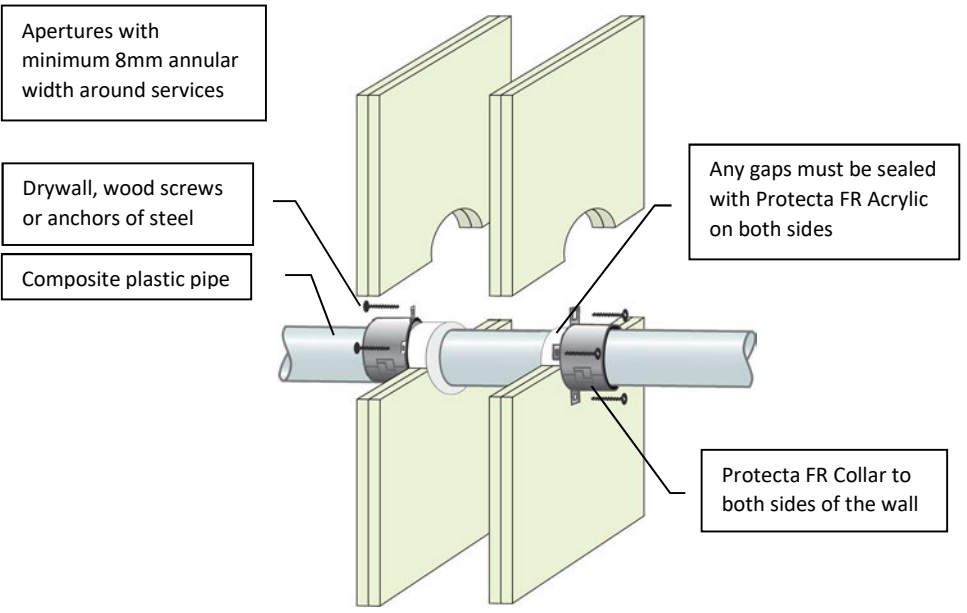
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Scale: **NTS**      Drawn by: **K.B**



**Installation Instructions**

1. Before fitting the collars ensure that the gaps between the pipe and the separating element are sealed with minimum 25mm deep Protecta FR Acrylic to cover the opening.
2. Place a suitable collar around the pipe and ensure that the collar shell and fixing lugs are positioned tightly to the surface of the wall, so that the fixings can be inserted fully.
3. Where the surface is uneven, apply a sealing bead of Protecta® FR Acrylic between the wall and the collar shell.
4. Attach the collar with ≥ Ø4mm drywall, wood screws or anchors with a length suitable for the number of boards that form the wall.



Services	Minimum Collar Height	Classification
≤ Ø32mm Aquatherm Green SDR9	30mm	EI 120 C/C
≤ Ø50mm Aquatherm Green SDR9	50mm	EI 120 C/C
≤ Ø110mm Aquatherm Green SDR9	50mm	EI 60 C/C (E 120)
≤ Ø50mm BluePower	50mm	EI 90 C/C, EI 90 U/C, EI 90 C/U, EI 90 U/U (E 120)
≤ Ø110mm BluePower	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U (E 120)
Ø125mm BluePower	60mm	EI 60 C/C, EI 60 U/C, EI 60 C/U
Ø160mm BluePower	60mm	EI 90 C/C, EI 90 U/C, EI 90 C/U
≤ Ø50mm Geberit Silent-PP	50mm	EI 120 C/C, EI 120 U/C, EI 120 C/U, EI 120 U/U
≤ Ø110mm Geberit Silent-PP	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 120)
≤ Ø50mm Polo-Kal NG pipes	50mm	EI 120 C/C, EI 120 U/C, EI 120 C/U, EI 120 U/U
≤ Ø110mm Polo-Kal NG pipes	50mm	EI 90 C/C, EI 90 U/C, EI 90 C/U, EI 90 U/U (E 120)
Ø125mm Polo-Kal NG pipes	60mm	EI 120 C/C, EI 120 U/C (E 120 C/U, E 120 U/U)
Ø160mm Polo-Kal NG pipes	60mm	EI 120 C/C, EI 120 U/C, EI 120 C/U, EI 120 U/U
≤ Ø50mm Rehau Raupiano Plus	50mm	EI 90 C/C, EI 90 U/C, EI 90 C/U, EI 90 U/U (E 120)
≤ Ø110mm Rehau Raupiano Plus	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 120)
≤ Ø160mm Rehau Raupiano Plus	60mm	EI 120 C/C, EI 120 U/C, EI 120 C/U, EI 120 U/U
≤ Ø50mm Wavin SiTech	50mm	EI 120 C/C, EI 120 U/C, EI 120 C/U, EI 120 U/U
≤ Ø110mm Wavin SiTech	50mm	EI 60 C/C, EI 60 U/C, EI 60 C/U, EI 60 U/U (E 120)



ETA 18/0854

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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:

Job Title:

**Products** Protecta FR Collar  
Protecta FR Acrylic

**Application** Fire stopping of composite plastic pipes in flexible walls

**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**

Fire classifications in table on the left. For full specifications, please refer to the Installation Instructions.

Sound reduction (seal only) Rw 58dB

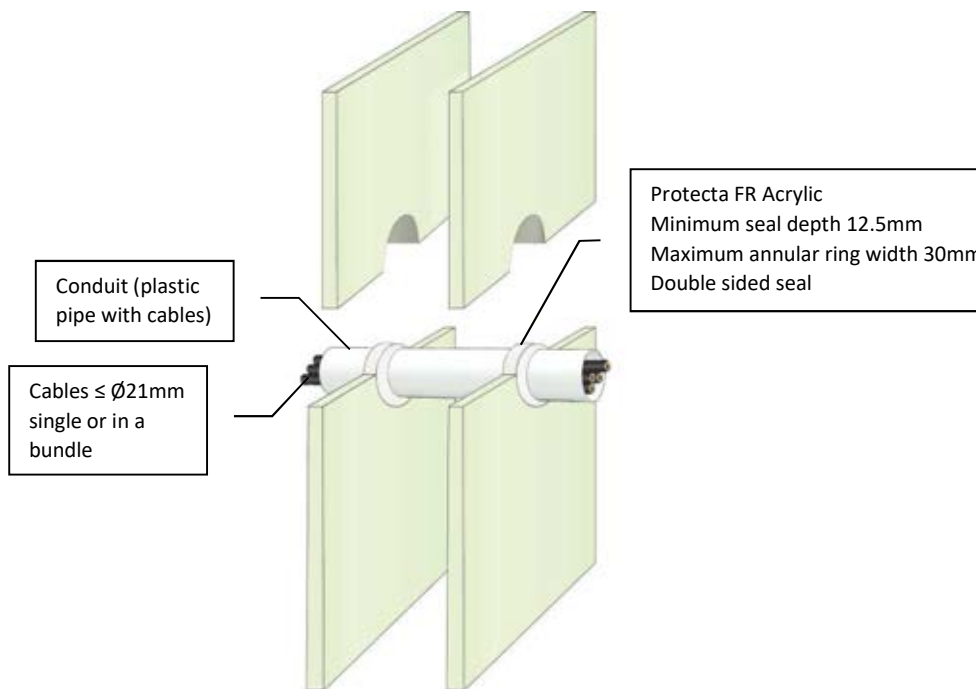
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Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

Sheet size: **A4**      Drawn date & no: **20/8/19**

Scale: **NTS**      Drawn by: **K.B**

Installation Instructions

1. Before installing Protecta® FR Acrylic ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Where Protecta® FR Acrylic is to be installed against surfaces that cannot tolerate direct contact; appropriate surface preparation should be made (contact Polyseam for guidance in these cases). For paints sensitive to sealing compounds, priming with a PVA primer is recommended.
3. When installing the sealant in gypsum boards, the exposed edges of the board can be wetted with water, or Protecta® FR Acrylic diluted with water to prime the surfaces helping adhesion and preventing excessive joint shrinkage.
4. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

<b>Products</b>	Protecta FR Acrylic
<b>Application</b>	Fire stopping of conduits in flexible walls
<b>Construction</b>	Minimum wall thickness of 75 mm and comprise steel studs or timber studs* lined on both faces with minimum 1 layer of 12.5 mm thick boards

<b>Fire &amp; Sound classification</b>	
PVC-U or PVC-C conduit/pipe ≤ Ø32mm with wall thickness 1.0 – 1.8mm	EI 45 U/C & E 60 U/C
PE, ABS or SAN+PVC conduit/pipe ≤ Ø32mm with wall thickness 2.0 – 3.0mm	EI 30 U/C & E 45 U/C
PP conduit/pipe ≤ Ø32mm with wall thickness 2.3 – 4.4mm	EI 30 U/C & E 45 U/C
Sound reduction (seal only)	Rw 62dB

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 Polyseam Ltd, 15 St Andrews Road,  
 Huddersfield, West Yorkshire, HD1 6SB  
 Tel: +44 (0) 148 4421036  
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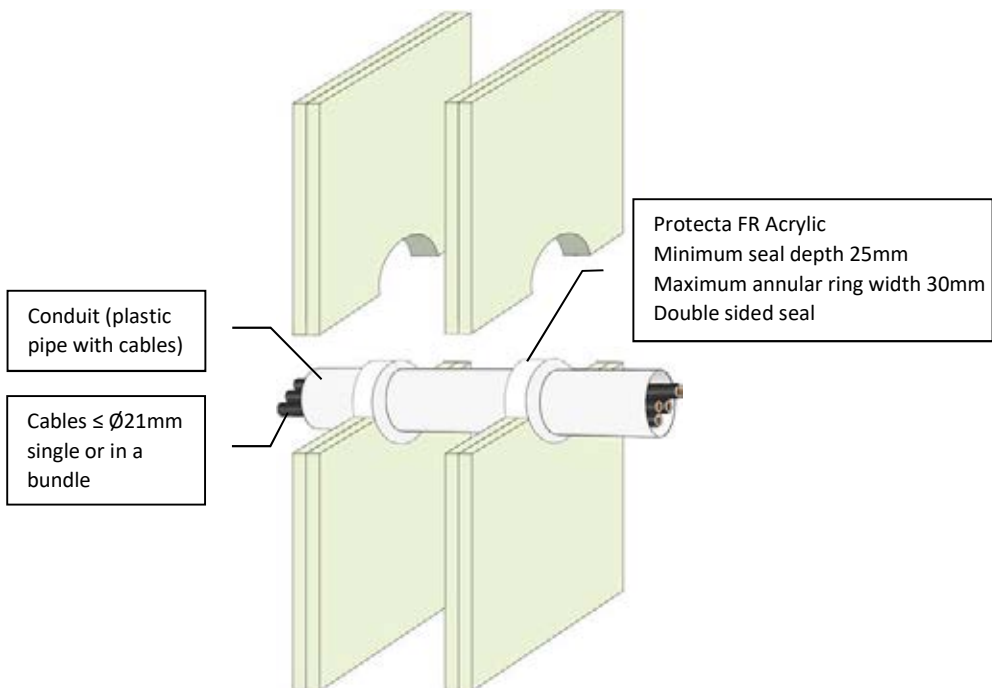
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Signed and approved:

Sheet size: <b>A4</b>	Drawn date & no: 8/4/18
Scale: <b>NTS</b>	Drawn by: K.B

Installation Instructions

1. Before installing Protecta® FR Acrylic ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Where Protecta® FR Acrylic is to be installed against surfaces that cannot tolerate direct contact; appropriate surface preparation should be made (contact Polyseam for guidance in these cases). For paints sensitive to sealing compounds, priming with a PVA primer is recommended.
3. When installing the sealant in gypsum boards, the exposed edges of the board can be wetted with water, or Protecta® FR Acrylic diluted with water to prime the surfaces helping adhesion and preventing excessive joint shrinkage.
4. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
5. Fill the gap or joint with Protecta® FR Acrylic to the required depth.
6. Apply the sealant generously to prevent air bubbles. Finish the bead with a moist spatula, pallet knife or brush.
7. Protecta® FR Acrylic can be over-painted with most emulsion or alkyd (gloss) paints.



Client:

Job Title:

<b>Products</b>	Protecta FR Acrylic
<b>Application</b>	Fire stopping of conduits in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards

<b>Fire &amp; Sound classification</b>	
PVC-U or PVC-C conduit/pipe ≤ Ø40mm with wall thickness 1.0 – 1.9mm	EI 120 U/C & E 120 U/C
PE, ABS or SAN+PVC conduit/pipe ≤ Ø40mm with wall thickness 2.0 – 3.0mm	EI 90 U/C & E 90 U/C
PP conduit/pipe ≤ Ø40mm with wall thickness 1.8 – 2.2mm	EI 90 U/C & E 90 U/C
Sound reduction (seal only)	Rw 62dB



Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)



ETA 18/0904

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Signed and approved:

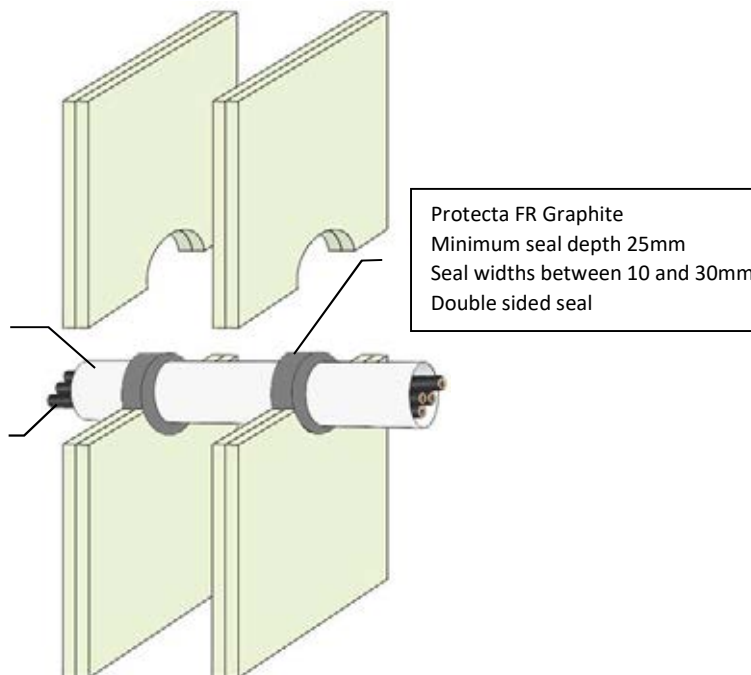
Sheet size: <b>A4</b>	Drawn date & no: 14/8/19
Scale: <b>NTS</b>	Drawn by: K.B

Installation Instructions

1. Before installing Protecta® FR Graphite ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. When installing any backing material, cut this slightly oversize and insert into the gap ensuring a tight friction fit. Ensure correct depth is achieved.
3. Fill the gap or joint with Protecta® FR Graphite to the required depth.
4. Apply the sealant generously avoiding air bubbles. Finish the bead with a moist spatula or pallet knife. Avoid excessive tooling/smoothing as this may make the seal surface wet and soft.
5. Protecta® FR Graphite can be over-painted with most emulsion or alkyd (gloss) paints.

Conduit (plastic pipe with cables)

Cables ≤ Ø20mm single or in a bundle



Client:

Job Title:

<b>Products</b>	Protecta FR Graphite
<b>Application</b>	Fire stopping of conduits in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards

<b>Fire &amp; Sound classification</b>	
PE, ABS or SAN+PVC conduit/pipe ≤ Ø110mm with wall thickness 2.4 - 10.0mm	EI 60 U/C
PP conduit/pipe ≤ Ø110mm with wall thickness 2.7 - 6.6mm	EI 90 U/C
PVC-U or PVC-C conduit/pipe ≤ Ø110mm with wall thickness 1.9 - 6.6mm	EI 90 U/C
Sound reduction (seal only)	Rw 53dB

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 Polyseam Ltd, 15 St Andrews Road,  
 Huddersfield, West Yorkshire, HD1 6SB  
 Tel: +44 (0) 148 4421036  
 Email: post.uk@polyseam.com



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Signed and approved:

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Scale: <b>NTS</b>	Drawn by: K.B

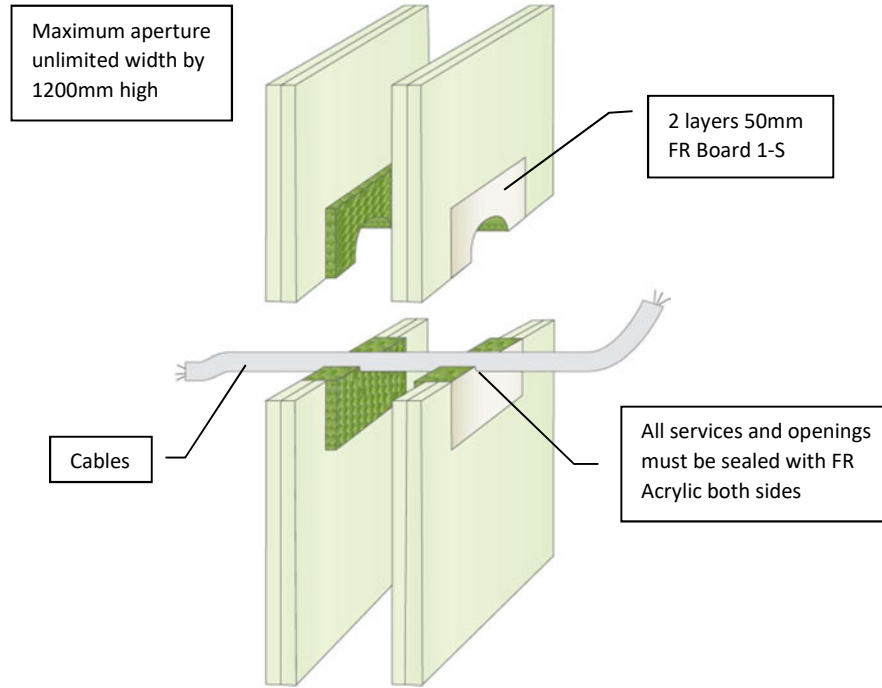
## Appendix IV

-

### Service penetration solutions in larger apertures

Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The coated side of the board should be flush with the surface of the drywall on both sides.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.




ETA 13/0673 & 18/0855

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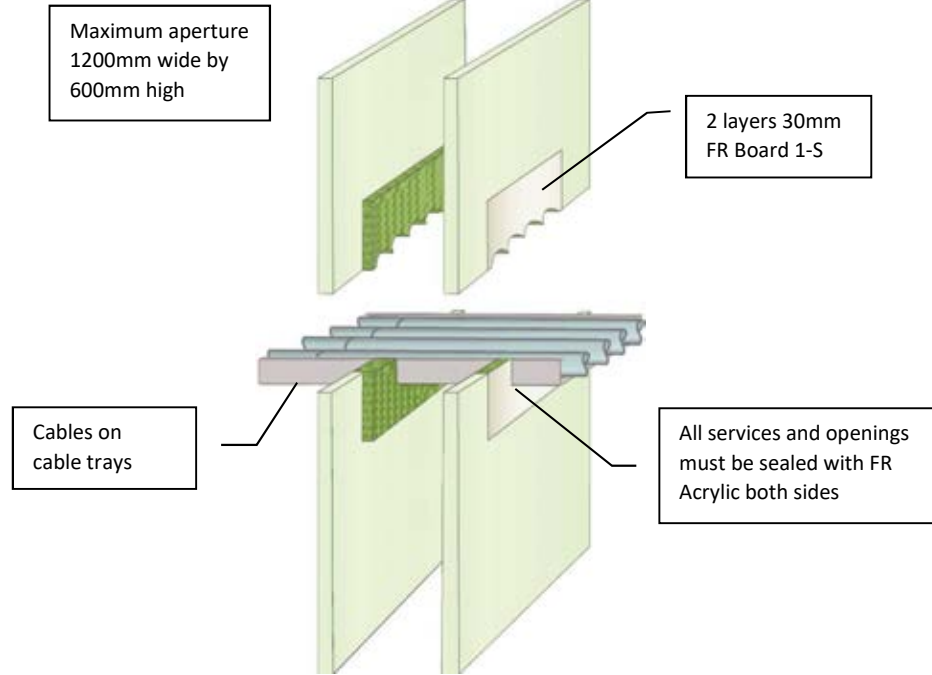
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of cables in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards.
<b>Fire &amp; Sound classification</b>	
Cables ≤ Ø21mm	EI 60 & E 120
Sound reduction (seal only)	52 dB
	
Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
<b>A4</b>	20/4/15
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The coated side of the board should be flush with the surface of the drywall on both sides.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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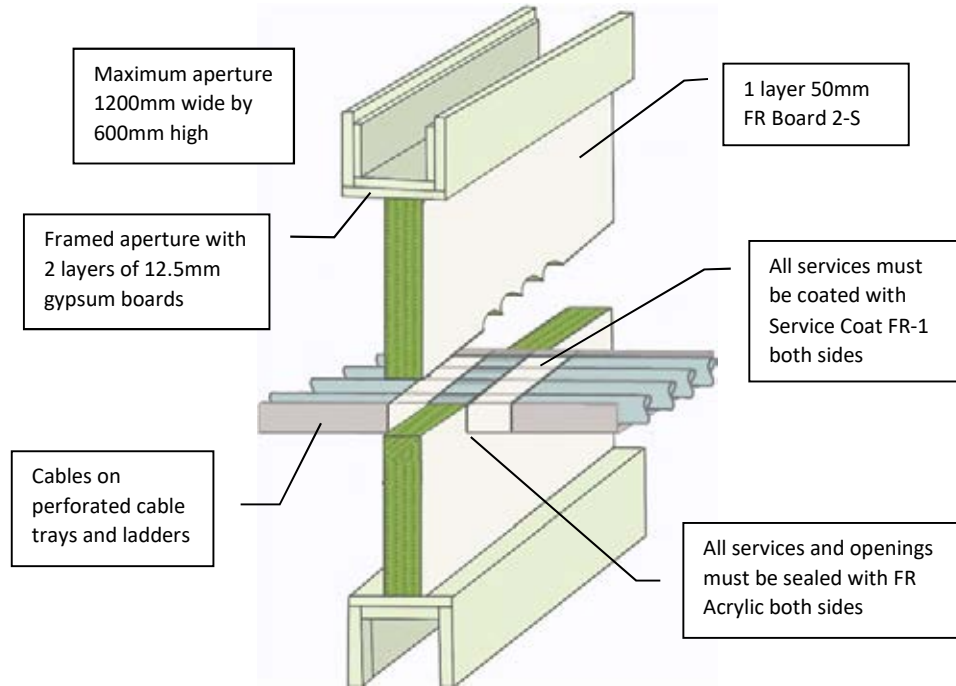
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of cables on cable trays in flexible walls
<b>Construction</b>	Minimum wall thickness of 75 mm and comprise steel studs or timber studs* lined on both faces with minimum 1 layer of 12.5 mm thick boards
<b>Fire &amp; Sound classification</b>	
Cables ≤ Ø21mm single or bundled on trays	EI 45 & E 45
Cables ≤ Ø80mm single or bundled on trays	EI 30 & E 45
Sound reduction (seal only)	52 dB
	
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Sheet size:	Drawn date & no:
<b>A4</b>	26/7/17
Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The board can be positioned to either side of the construction or anywhere in between.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. All cables and cable trays must be coated 150mm each side with 300µ WFT Protecta Service Coat FR-1.
6. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

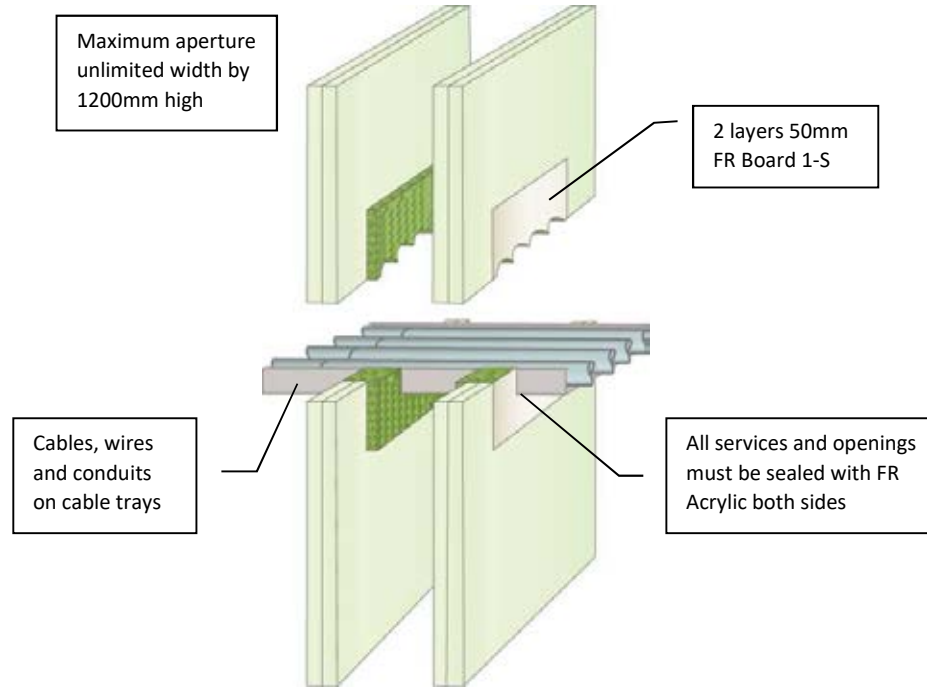
Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic Protecta FR ServiceCoat FR-1
<b>Application</b>	Fire stopping of cables on cable trays in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards
<b>Fire &amp; Sound classification</b>	
Cables ≤ Ø80mm single or bundled on perforated cable trays and ladders EI 60 & E 60	
Sound reduction (seal only) 29 dB	
	
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Sheet size: <b>A4</b>	Drawn date & no: 26/7/17
Scale: <b>NTS</b>	Drawn by: K.B



Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The coated side of the board should be flush with the surface of the drywall on both sides.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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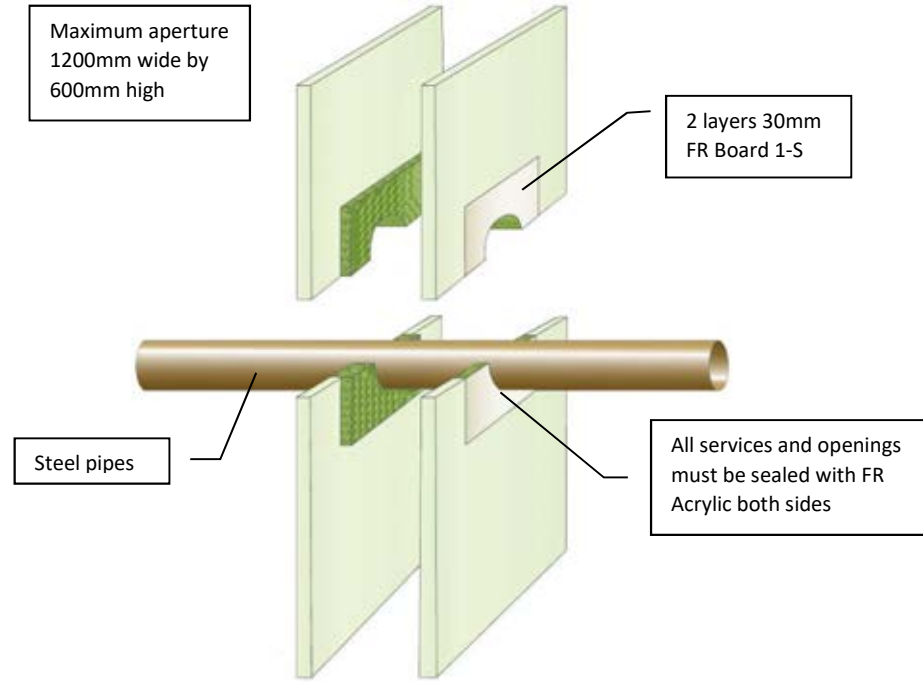
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of cables, wires and conduits on cable trays in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards.
<b>Fire &amp; Sound classification</b>	
Cables ≤ Ø80mm single or bundled, wires 185mm <sup>2</sup> and steel or PVC conduits ≤ Ø16mm on trays	
EI 60 & E 60	
Sound reduction (seal only)	
52 dB	
	
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Sheet size:	Drawn date & no:
<b>A4</b>	20/4/15
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Protecta® FR Coating and Protecta® FR Acrylic are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. The coated side of the board should be flush with the surface of the drywall on both sides.
4. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
5. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
6. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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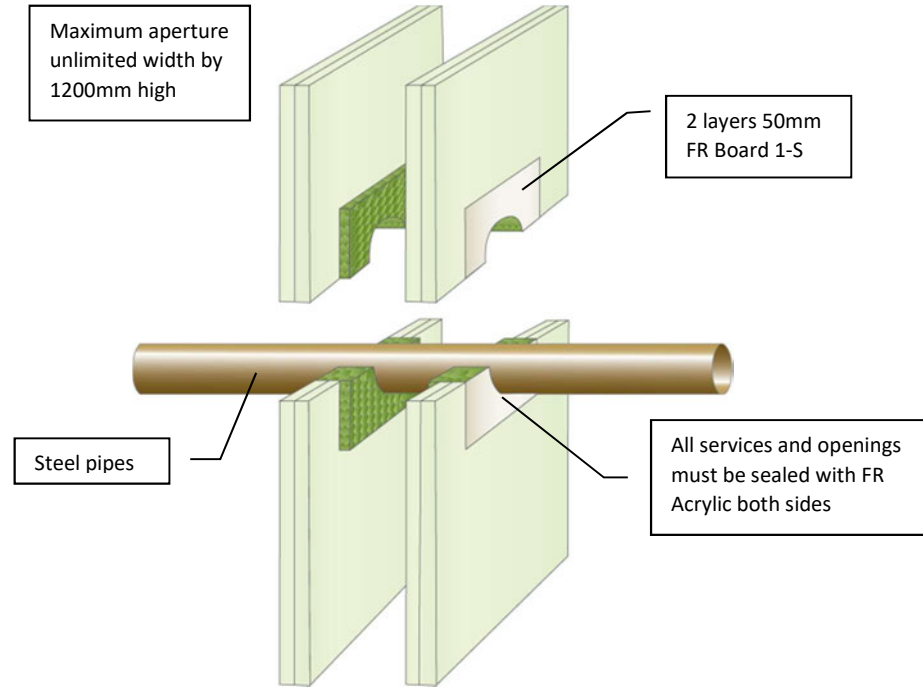
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Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of un-insulated steel pipes in flexible walls
<b>Construction</b>	Minimum wall thickness of 75 mm and comprise steel studs or timber studs* lined on both faces with minimum 1 layer of 12.5 mm thick boards.
<b>Fire &amp; Sound classification</b>	
Steel pipes ≤ Ø22mm	EI 30 C/U & E 45 C/U
Sound reduction (seal only)	52 dB
	
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<b>A4</b>	26/7/17
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Protecta® FR Coating and Protecta® FR Acrylic are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. The coated side of the board should be flush with the surface of the drywall on both sides.
4. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
5. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
6. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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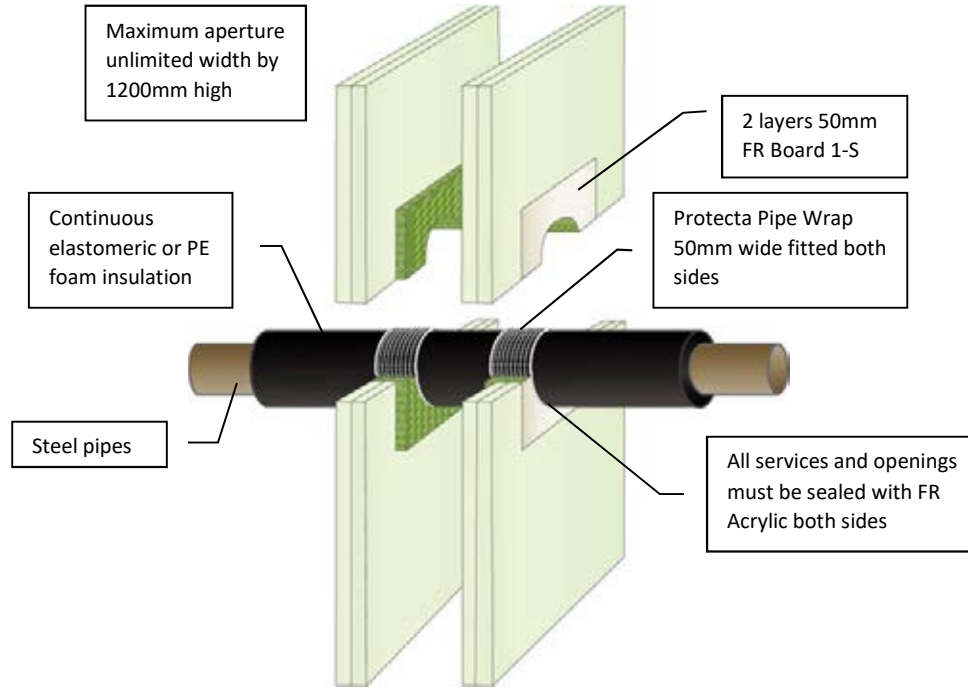
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of un-insulated steel pipes in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards.
<b>Fire &amp; Sound classification</b>	
Steel pipes ≤ Ø22mm	EI 60 C/U & E 120 C/U
Steel pipes ≤ Ø114mm	EI 20 C/U & E 90 C/U
Sound reduction (seal only)	52 dB
	
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<b>A4</b>	26/7/17
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The coated side of the board should be flush with the surface of the drywall on both sides.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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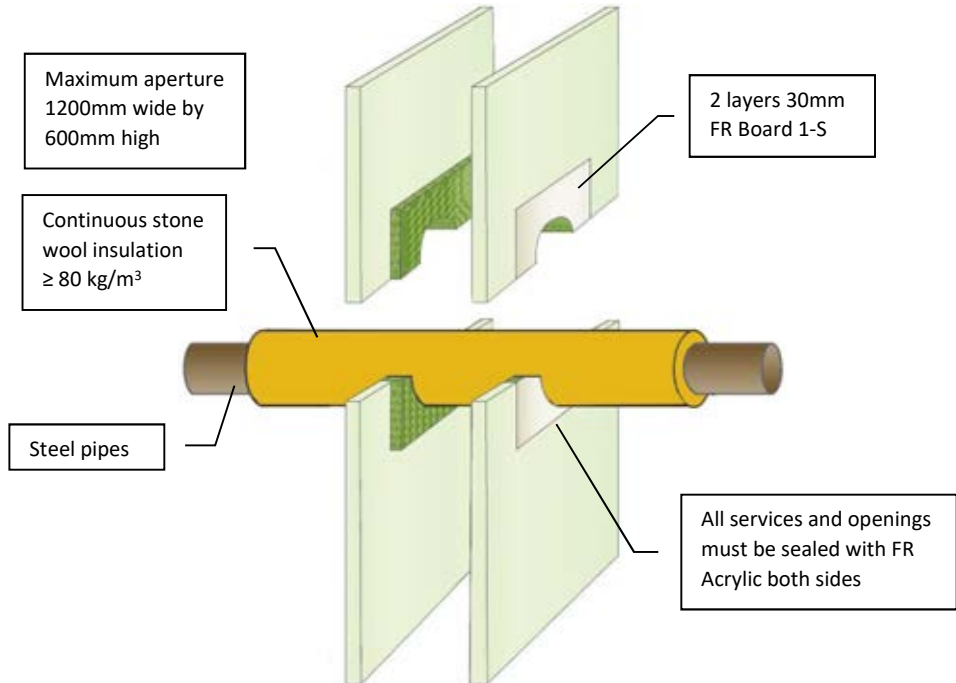
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic Protecta FR Pipe Wrap 25m
<b>Application</b>	Fire stopping of insulated steel pipes in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards.
<b>Fire &amp; Sound classification</b>	
Steel pipes ≤ Ø40mm with 13mm continuous foam insulation and 2 layers of pipe wrap EI 120 U/U & E 120 U/U	
Steel pipes ≤ Ø165mm with 13 - 32mm continuous foam insulation and 2 layers of pipe wrap EI 60 U/U & E 120 U/U	
Steel pipes ≤ Ø324mm with 32 - 50mm continuous foam insulation and 3 layers of pipe wrap EI 90 C/U & E 90 C/U	
Sound reduction (seal only)	52 dB
	
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Scale: <b>NTS</b>	Drawn by: K.B

Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The coated side of the board should be flush with the surface of the drywall on both sides.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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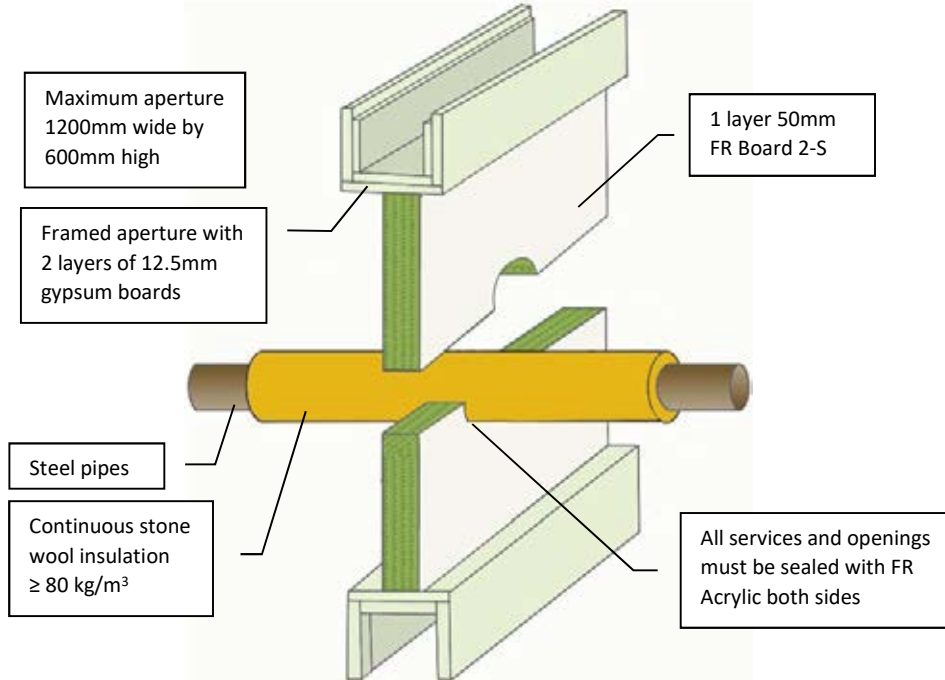
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of insulated steel pipes in flexible walls
<b>Construction</b>	Minimum wall thickness of 75 mm and comprise steel studs or timber studs* lined on both faces with minimum 1 layer of 12.5 mm thick boards.
<b>Fire &amp; Sound classification</b>	
Steel pipes ≤ Ø324mm with 20-30mm continuous stone wool insulation EI 45 C/U & E 45 C/U	
Sound reduction (seal only)	52 dB
	
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Sheet size:	Drawn date & no:
<b>A4</b>	26/7/17
Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The board can be positioned to either side of the construction or anywhere in between.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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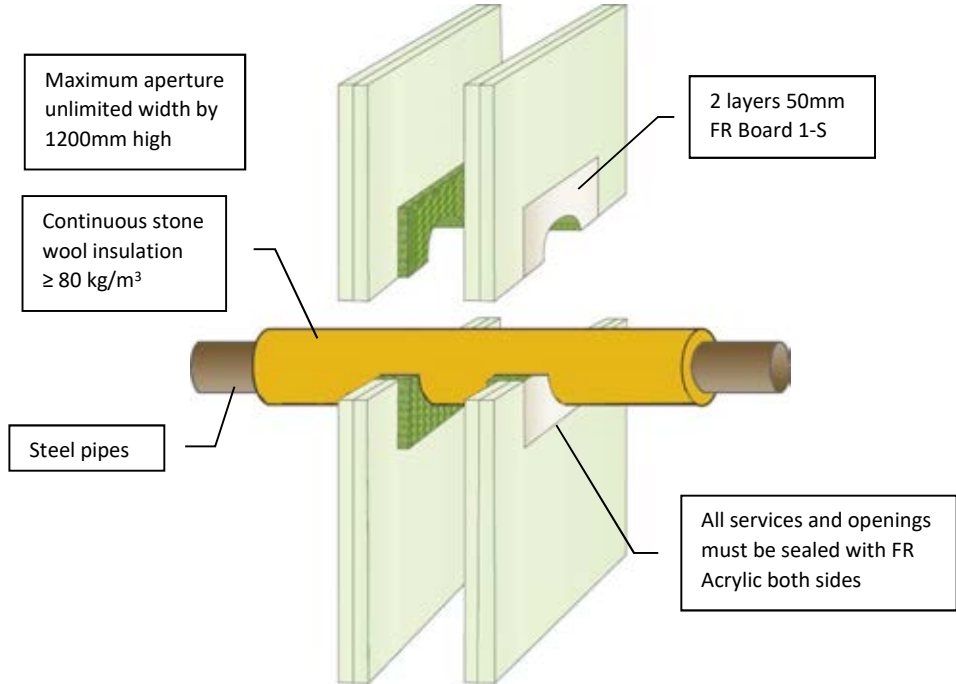
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Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of insulated steel pipes in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards.
<b>Fire &amp; Sound classification</b>	
Steel pipes ≤ Ø324mm with 20-30mm continuous stone wool insulation EI 60 C/U & E 90 C/U	
Sound reduction (seal only)	29 dB
	
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Sheet size:	Drawn date & no:
<b>A4</b>	26/7/17
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<b>NTS</b>	K.B

Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The coated side of the board should be flush with the surface of the drywall on both sides.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.




ETA 13/0673 & 18/0855

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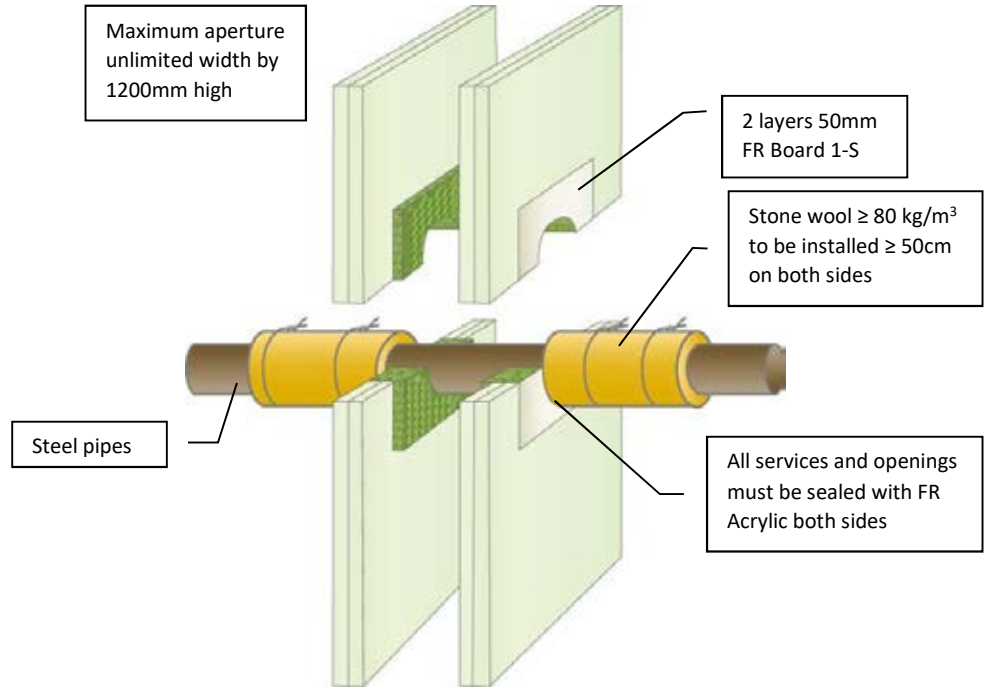
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of insulated steel pipes in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards.
<b>Fire &amp; Sound classification</b>	
Steel pipes ≤ Ø324mm with 20-80mm continuous stone wool insulation EI 120 C/U & E 120 C/U	
Sound reduction (seal only)	52 dB
	
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Sheet size:	Drawn date & no:
<b>A4</b>	10/1/17
Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Protecta® FR Coating and Protecta® FR Acrylic are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. The coated side of the board should be flush with the surface of the drywall on both sides.
4. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
5. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
6. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:

Job Title:

**Products** Protecta FR Board  
Protecta FR Acrylic

**Application** Fire stopping of insulated steel pipes in flexible walls

**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards.

**Fire & Sound classification**

Steel pipes ≤ Ø40mm with ≥ 20mm stone wool insulation  
EI 120 C/U & E 120 C/U

Steel pipes ≤ Ø219mm with ≥ 30mm stone wool insulation  
EI 90 C/U & E 120 C/U

Sound reduction (seal only)  
52 dB

**Protecta®**  
Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

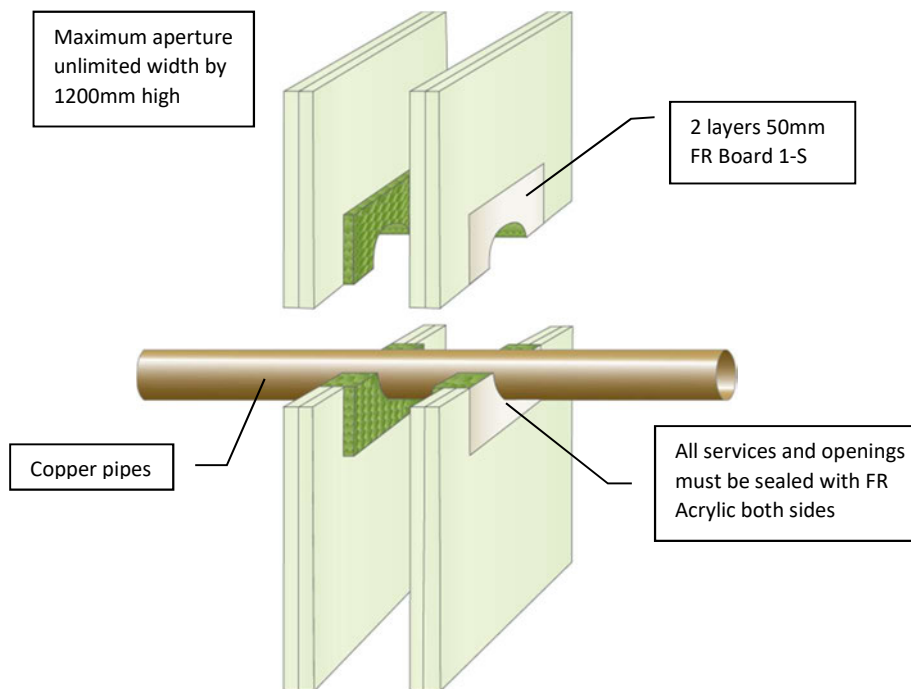
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Scale: **NTS** Drawn by: K.B



Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Protecta® FR Coating and Protecta® FR Acrylic are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. The coated side of the board should be flush with the surface of the drywall on both sides.
4. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
5. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
6. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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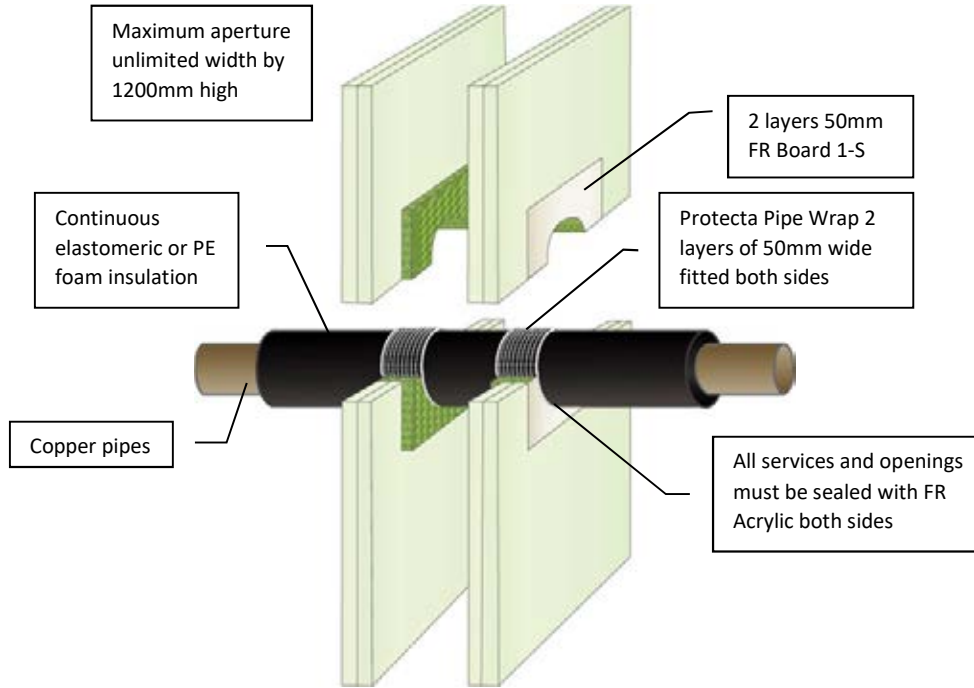
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of un-insulated copper pipes in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards.
<b>Fire &amp; Sound classification</b>	
Copper pipes ≤ Ø6mm	EI 60 C/C & E 120 C/C
Sound reduction (seal only)	52 dB
	
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<b>A4</b>	26/7/17
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The coated side of the board should be flush with the surface of the drywall on both sides.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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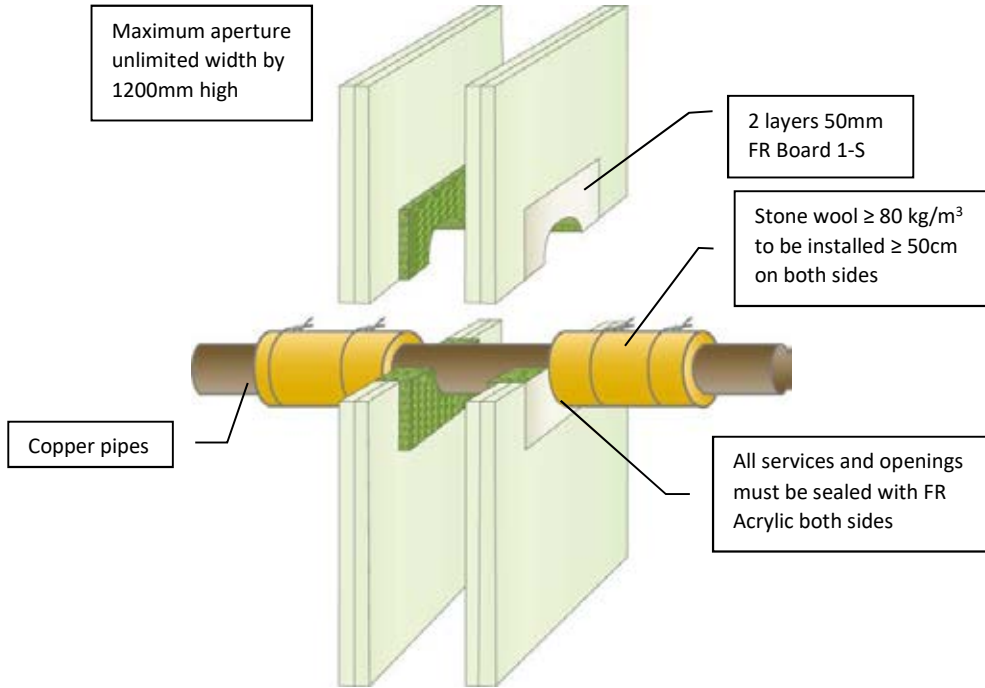
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic Protecta FR Pipe Wrap 25m
<b>Application</b>	Fire stopping of insulated copper pipes in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards.
<b>Fire &amp; Sound classification</b>	
Copper pipes ≤ Ø12mm with 9mm continuous foam insulation	EI 120 C/C & E 120 C/C
Copper pipes ≤ Ø54mm with 9 - 13mm continuous foam insulation	EI 90 C/C & E 120 C/C
Copper pipes ≤ Ø54mm with 14 - 25mm continuous foam insulation	EI 60 C/C & E 120 C/C
Sound reduction (seal only)	52 dB
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<b>A4</b>	5/3/19
Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Protecta® FR Coating and Protecta® FR Acrylic are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. The coated side of the board should be flush with the surface of the drywall on both sides.
4. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
5. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
6. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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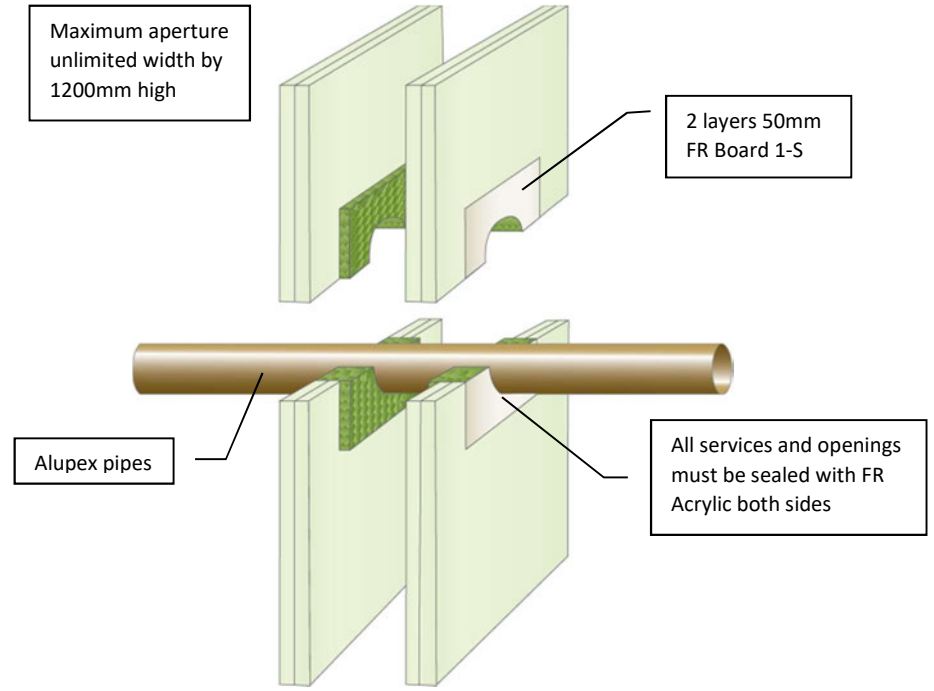
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of insulated copper pipes in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards.
<b>Fire &amp; Sound classification</b>	
Copper pipes ≤ Ø54mm with ≥ 20mm stone wool insulation EI 120 C/C & E 120 C/C	
Sound reduction (seal only) 52 dB	
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<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Protecta® FR Coating and Protecta® FR Acrylic are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. The coated side of the board should be flush with the surface of the drywall on both sides.
4. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
5. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
6. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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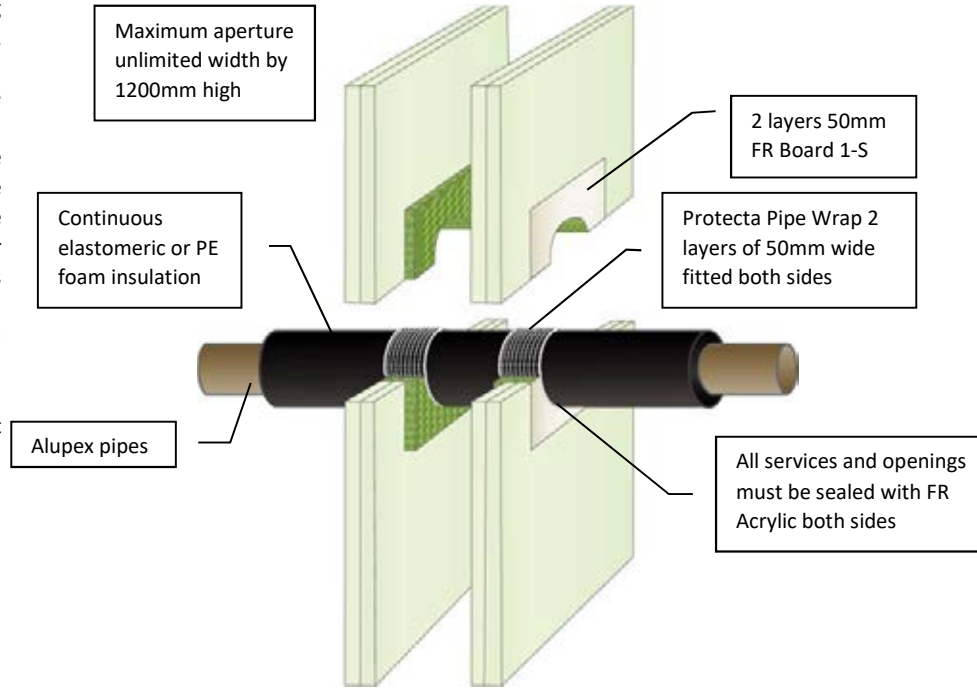
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Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of un-insulated alupex pipes in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards.
<b>Fire &amp; Sound classification</b>	
Alupex pipes ≤ Ø20mm EI 120 C/C & E 120 C/C	
Sound reduction (seal only) 52 dB	
	
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Scale: <b>NTS</b>	Drawn by: K.B

Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The coated side of the board should be flush with the surface of the drywall on both sides.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



ETA 13/0673 & 18/0855

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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:

Job Title:

**Products** Protecta FR Board  
Protecta FR Acrylic  
Protecta FR Pipe Wrap 25m

**Application** Fire stopping of insulated alupex pipes in flexible walls

**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards.

**Fire & Sound classification**

Alupex pipes ≤ Ø75mm with 9 - 25mm continuous foam insulation  
EI 120 C/C & E 120 C/C

Sound reduction (seal only) 52 dB



**Protecta®**

Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB

Tel: +44 (0) 148 4421036

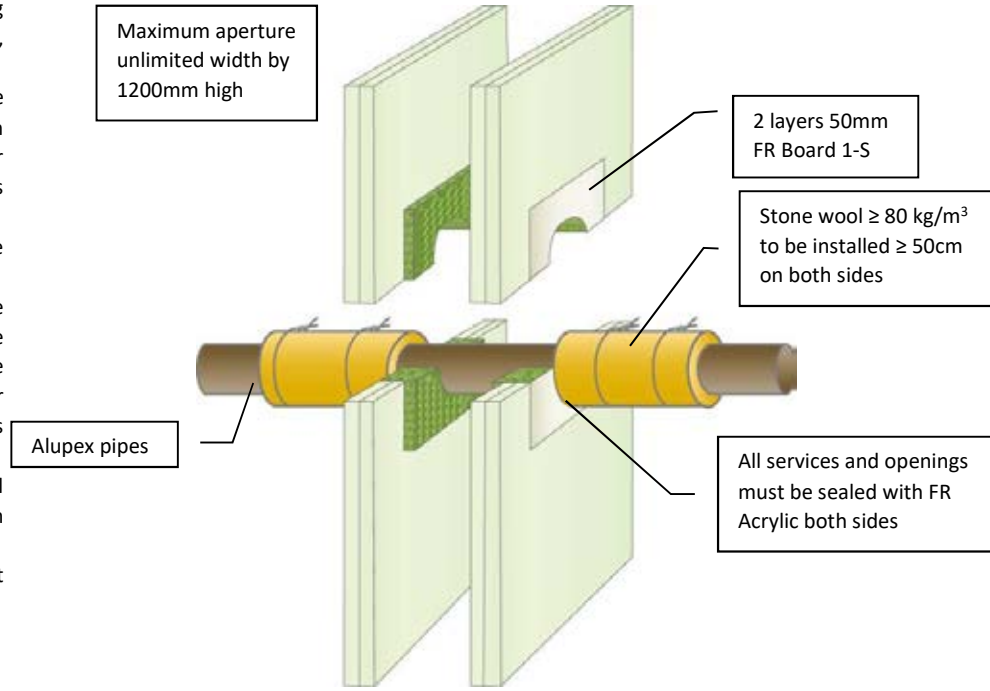
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Sheet size: **A4**  
Drawn date & no: 5/3/19

Scale: **NTS**  
Drawn by: K.B

**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Protecta® FR Coating and Protecta® FR Acrylic are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. The coated side of the board should be flush with the surface of the drywall on both sides.
4. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
5. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
6. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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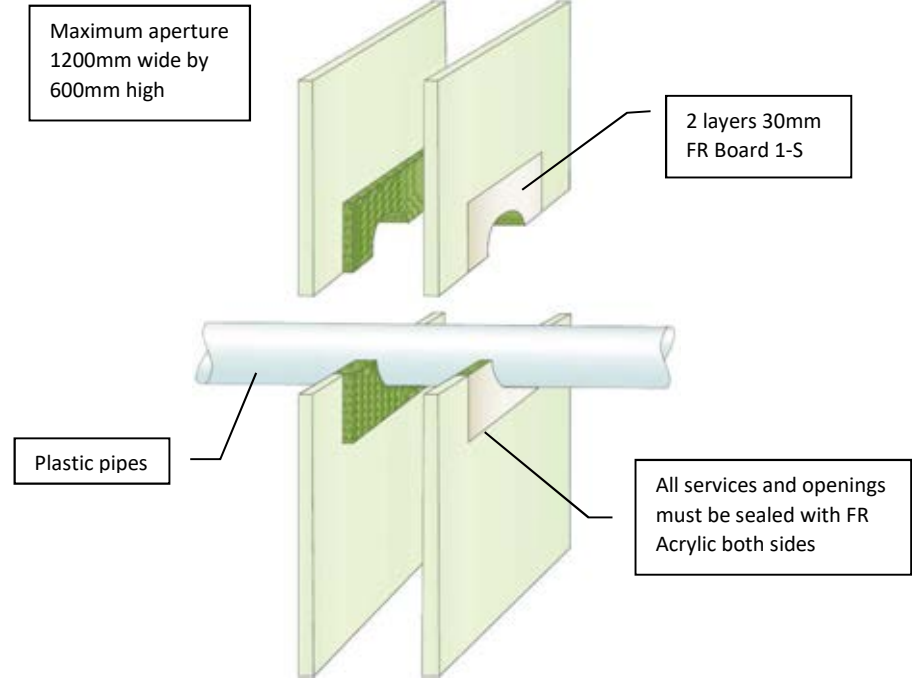
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of insulated alupex pipes in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards.
<b>Fire &amp; Sound classification</b>	
Alupex pipes ≤ Ø16mm with ≥ 20mm stone wool insulation EI 120 C/C & E 120 C/C	
Alupex pipes ≤ Ø75mm with ≥ 20mm stone wool insulation EI 60 C/C & E 60 C/C	
Sound reduction (seal only) 52 dB	
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
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<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The coated side of the board should be flush with the surface of the drywall on both sides.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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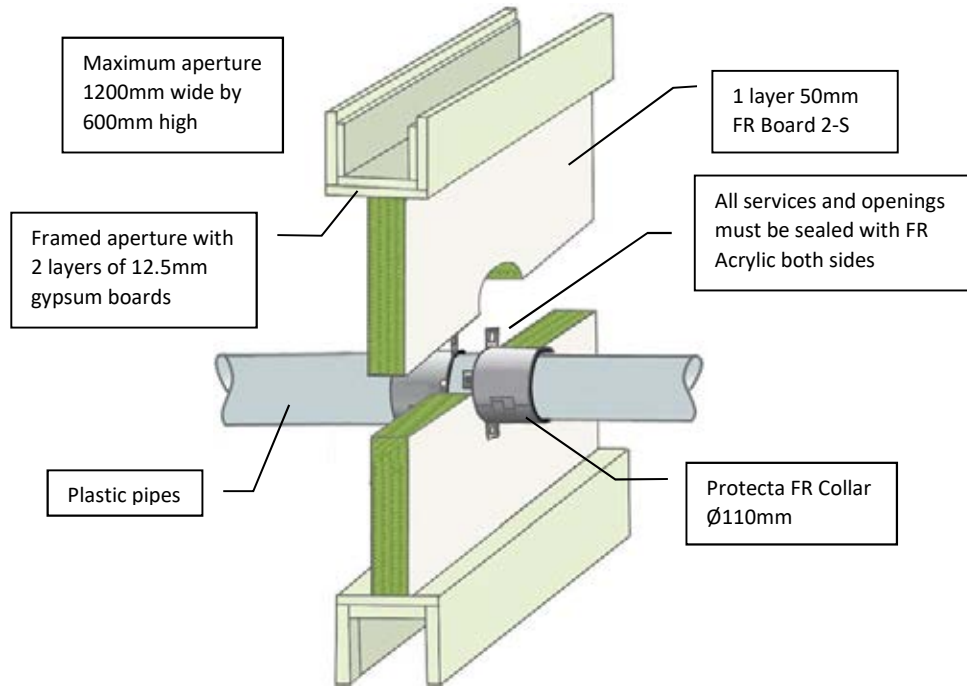
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Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of plastic pipes in flexible walls
<b>Construction</b>	Minimum wall thickness of 75 mm and comprise steel studs or timber studs* lined on both faces with minimum 1 layer of 12.5 mm thick boards
<b>Fire &amp; Sound classification</b>	
PVC-U and PVC-C pipes ≤ Ø32mm with wall thickness 1.0-1.8mm EI 45 U/C & E 45 U/C	
Sound reduction (seal only)	52 dB
	
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**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The board can be positioned to either side of the construction or anywhere in between.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Plastic pipes must be secured with Protecta® FR Collars Ø110mm fixed with penetrating threaded rod and nuts on both sides.
6. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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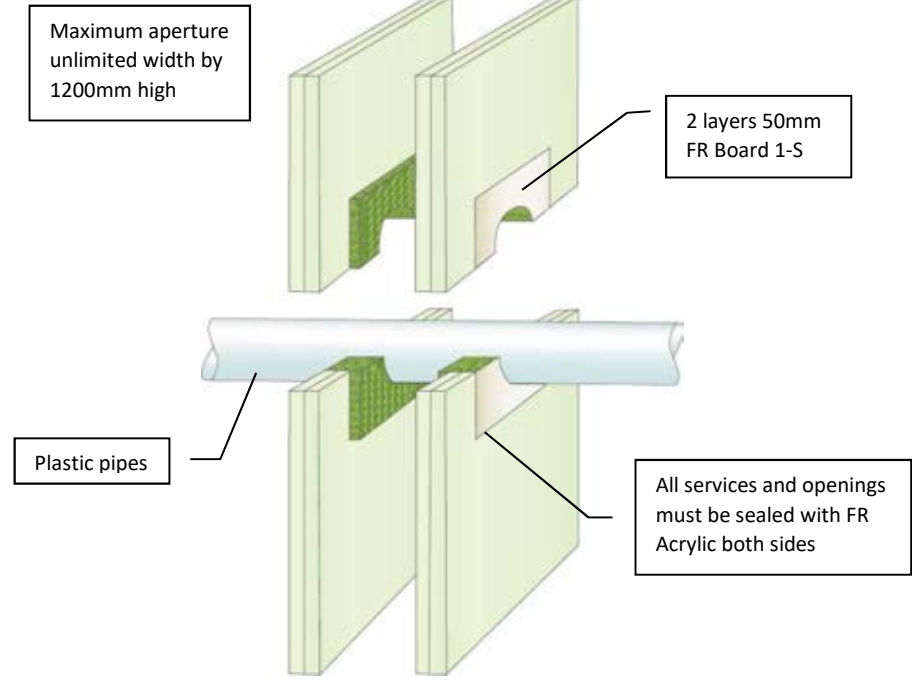
Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic Protecta FR Collar
<b>Application</b>	Fire stopping of plastic pipes in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards.
<b>Fire &amp; Sound classification</b>	
PVC-U and PVC-C pipes ≤ Ø110mm EI 60 U/C & E 90 U/C	
Sound reduction (seal only)	29 dB
	
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<b>NTS</b>	K.B



Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The coated side of the board should be flush with the surface of the drywall on both sides.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:

Job Title:

**Products** Protecta FR Board  
Protecta FR Acrylic  
**Application** Fire stopping of plastic pipes in flexible walls  
**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards.

**Fire & Sound classification**

PEX pipe-in-pipe ≤ Ø25mm  
EI 90 C/C & E 90 C/C

PVC-U and PVC-C pipes ≤ Ø32mm with wall thickness 1.0-2.4mm  
EI 60 U/C & E 90 U/C

PE, ABS and SAN+PVC pipes ≤ Ø32mm with wall thickness 2.0-3.0mm  
EI 60 U/C & E 60 U/C

PP pipes ≤ Ø32mm with wall thickness 1.8-2.2mm  
EI 60 U/C & E 120 U/C

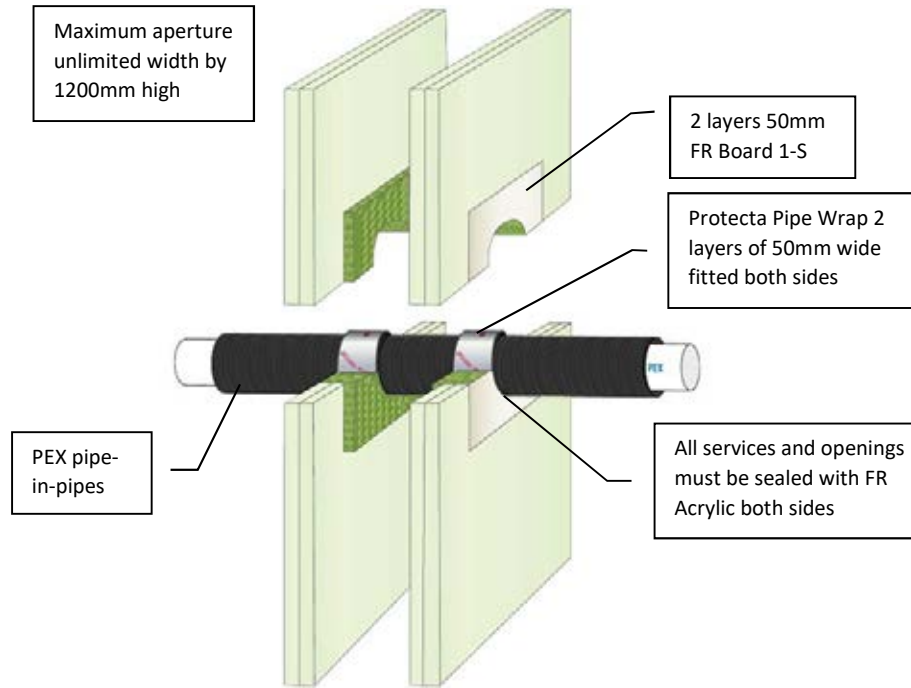
Sound reduction (seal only) 52 dB

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**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The coated side of the board should be flush with the surface of the drywall on both sides.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.




ETA 13/0673 & 18/0855

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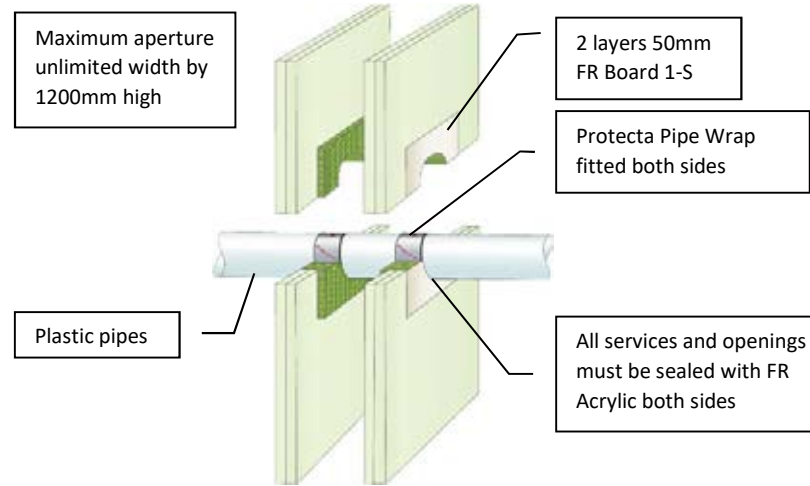
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic Protecta FR Pipe Wrap
<b>Application</b>	Fire stopping of PEX pipe-in-pipes in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards.
<b>Fire &amp; Sound classification</b>	
PEX pipe-in-pipes ≤ Ø54mm	EI 120 C/C & E 120 C/C
PEX pipe-in-pipes ≤ Ø25mm in bundles ≤ Ø50mm	EI 90 C/C & E 90 C/C
Sound reduction (seal only)	52 dB
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
<b>A4</b>	5/3/19
Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The coated side of the board should be flush with the surface of the drywall on both sides.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



Services	Pipe Wall Thickness	FR Pipe Wrap	Classification
≤ Ø 40mm PVC-U & PVC-C	1.9 – 3.0mm	50 x 1.8mm (1 layer)	EI 120 U/U (E 120 U/U)
≤ Ø 40mm PE, ABS & SAN+PVC	2.4 – 3.7mm	50 x 1.8mm (1 layer)	EI 120 U/U (E 120 U/U)
≤ Ø 40mm PP	1.8 – 5.5mm	50 x 1.8mm (1 layer)	EI 120 U/U (E 120 U/U)
≤ Ø 110mm PVC-U & PVC-C	2.7 – 6.6mm	50 x 3.6mm (2 layers)	EI 90 U/C (E 120 U/C)
≤ Ø 110mm PE, ABS & SAN+PVC	4.2 – 10.0mm	50 x 3.6mm (2 layers)	EI 90 U/C (E 120 U/C)
≤ Ø 110mm PP	2.7 – 15.1mm	50 x 3.6mm (2 layers)	EI 90 U/U (E 90 U/U)
≤ Ø 125mm PVC-U & PVC-C	3.7 – 7.4mm	50 x 5.4mm (3 layers)	EI 90 U/C (E 120 U/C)
≤ Ø 125mm PE, ABS & SAN+PVC	4.8 – 12.0mm	50 x 5.4mm (3 layers)	EI 90 U/C (E 120 U/C)
≤ Ø 125mm PP	3.1 – 17.1mm	50 x 5.4mm (3 layers)	EI 90 U/C (E 120 U/C)
≤ Ø 160mm PVC-U & PVC-C	9.5mm	50 x 7.2mm (4 layers)	EI 90 U/C (E 120 U/C)
≤ Ø 160mm PE, ABS & SAN+PVC	14.6mm	50 x 7.2mm (4 layers)	EI 90 U/C (E 120 U/C)
≤ Ø 160mm PP	21.9mm	50 x 7.2mm (4 layers)	EI 90 U/C (E 120 U/C)
≤ Ø 200mm PVC-U & PVC-C	9.0 – 10.2mm	50 x 18.0mm (10 layers)	EI 90 C/C (E 90 C/C)
≤ Ø 250mm PVC-U & PVC-C	8.5 – 11.0mm	50 x 18.0mm (10 layers)	EI 90 C/C (E 90 C/C)
≤ Ø 315mm PVC-U & PVC-C	7.7 – 12.1mm	50 x 18.0mm (10 layers)	EI 90 C/C (E 90 C/C)
≤ Ø 400mm PVC-U & PVC-C	9.8 – 15.3mm	50 x 28.8mm (16 layers)	EI 90 C/C (E 90 C/C)

**Minimum separations and limitations** An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services should not exceed 60% of the penetration area.



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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

**Client:**

**Job Title:**

**Products** Protecta FR Board  
Protecta FR Acrylic  
Protecta FR Pipe Wrap 25m

**Application** Fire stopping of plastic pipes in flexible walls

**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**

For fire classifications please see the table on the left.

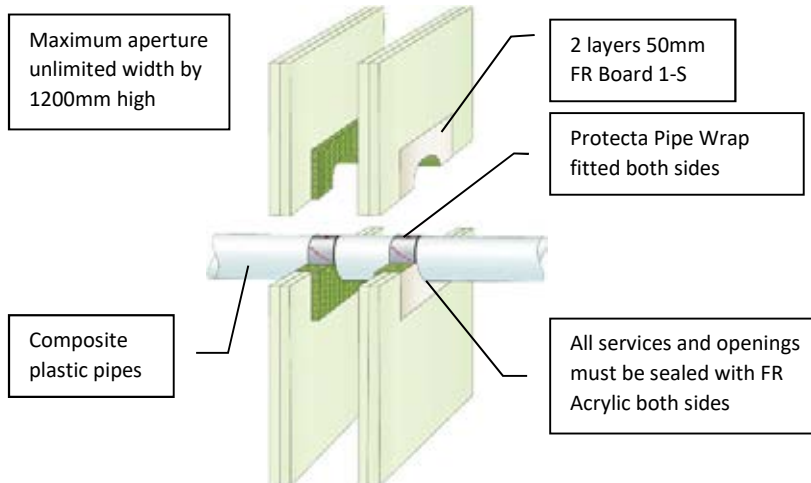
Sound reduction (seal only) 52 dB

Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

<b>Sheet size:</b> <b>A4</b>	<b>Drawn date &amp; no:</b> 5/3/19
<b>Scale:</b> <b>NTS</b>	<b>Drawn by:</b> K.B

**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The coated side of the board should be flush with the surface of the drywall on both sides.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



Services	FR Pipe Wrap	Classification
Ø 32mm Aquatherm Green SDR9 pipes	50 x 1.8mm (1 layer)	EI 90 C/C (E 120 C/C)
≤ Ø 110mm Aquatherm Green SDR9 pipes	50 x 3.6mm (2 layers)	EI 90 C/C (E 120 C/C)
≤ Ø 50mm BluePower pipes	50 x 3.6mm (2 layers)	EI 90 U/U (E 90 U/U)
≤ Ø 110mm BluePower pipes	50 x 3.6mm (2 layers)	EI 90 C/U (E 90 C/U)
≤ Ø 50mm Geberit Silent-PP pipes	50 x 3.6mm (2 layers)	EI 120 U/U (E 120 U/U)
≤ Ø 110mm Geberit Silent-PP pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
≤ Ø 50mm Polo-Kal NG pipes	50 x 3.6mm (2 layers)	EI 120 U/U (E 120 U/U)
≤ Ø 110mm Polo-Kal NG pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
Ø 125mm Polo-Kal NG pipes	50 x 7.2mm (4 layers)	EI 120 U/C (E 120 U/C)
Ø 160mm Polo-Kal NG pipes	50 x 10.8mm (6 layers)	EI 120 U/C (E 120 U/C)
≤ Ø 50mm Rehau Raupiano Plus pipes	50 x 3.6mm (2 layers)	EI 120 U/U (E 120 U/U)
≤ Ø 110mm Rehau Raupiano Plus pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
Ø 125mm Rehau Raupiano Plus pipes	50 x 7.2mm (4 layers)	EI 120 U/C (E 120 U/C)
Ø 160mm Rehau Raupiano Plus pipes	50 x 10.8mm (6 layers)	EI 120 U/C (E 120 U/C)
≤ Ø 50mm Wavin SiTech pipes	50 x 3.6mm (2 layers)	EI 90 U/U (E 120 U/U)
≤ Ø 110mm Wavin SiTech pipes	50 x 3.6mm (2 layers)	EI 60 U/C (E 120 U/C)

**Minimum separations and limitations** An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services should not exceed 60% of the penetration area.



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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:

Job Title:

**Products** Protecta FR Board  
Protecta FR Acrylic  
Protecta FR Pipe Wrap 25m

**Application** Fire stopping of composite plastic pipes in flexible walls

**Construction** Minimum wall thickness of 100 mm and comprise steel studs or timber studs\* lined on both faces with minimum 2 layers of 12.5 mm thick boards

**Fire & Sound classification**

For fire classifications please see the table on the left.

Sound reduction (seal only) 52 dB

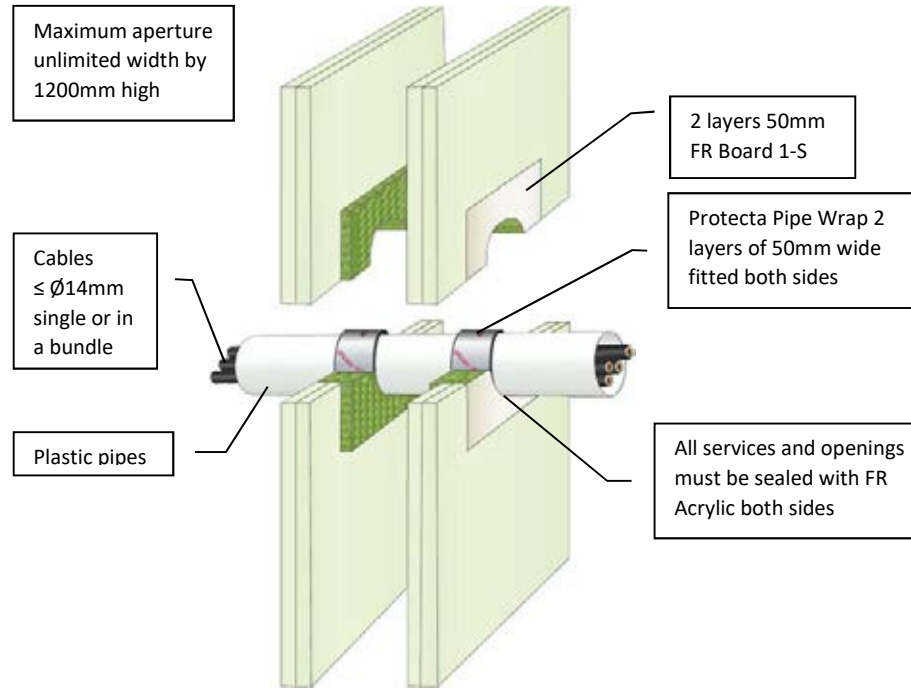
Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

Sheet size: **A4**      Drawn date & no: **5/3/19**

Scale: **NTS**      Drawn by: **K.B**

**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The coated side of the board should be flush with the surface of the drywall on both sides.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



ETA 13/0673 & 18/0855

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Signed and approved:

Client:

Job Title:

<b>Products</b>	Protecta FR Board Protecta FR Acrylic Protecta FR Pipe Wrap
<b>Application</b>	Fire stopping of conduits in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards.

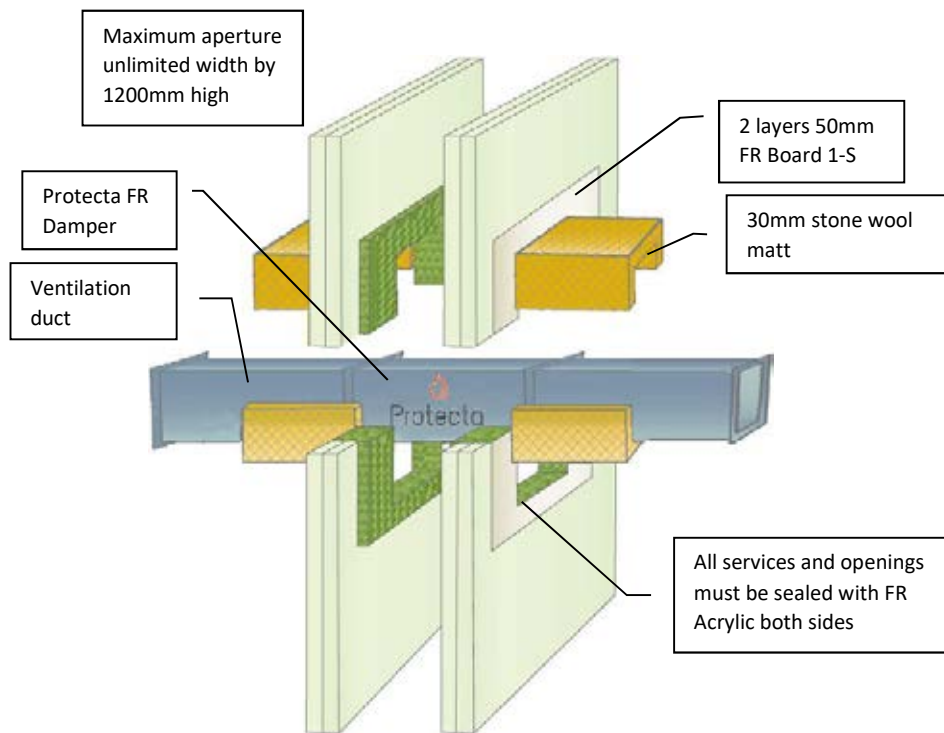
<b>Fire &amp; Sound classification</b>	
Conduits of PVC-U & PVC-C pipe ≤ Ø110mm with wall thickness 2.7-6.6mm	EI 90 U/C & E 120 U/C
Conduits of PE, ABS & SAN+PVC pipes ≤ Ø110mm with wall thickness 4.2-10.0mm	EI 90 U/C & E 120 U/C
Conduits of PP pipe ≤ Ø110mm with wall thickness 2.7-15.1mm	EI 90 U/C & E 120 U/C
Sound reduction (seal only)	52 dB

**Protecta®**  
Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

Sheet size:	Drawn date & no:
<b>A4</b>	5/3/19
Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Protecta® FR Coating and Protecta® FR Acrylic are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. The coated side of the board should be flush with the surface of the drywall on both sides.
4. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
5. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
6. Insulate the ventilation duct towards the fire seal on both sides with 30mm thick stone wool matting to the length given on this page. Insulate on one side only if the duct terminates in the wall.
7. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



This product is certified to applicable European (EN) standards and UL-EU Mark service requirements.

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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:

Job Title:

<b>Products</b>	Protecta FR Board Protecta FR Acrylic Protecta FR Damper
<b>Application</b>	Fire stopping of ventilation ducts in flexible walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards

<b>Fire &amp; Sound classification</b>	
≤ Ø 400mm damper/duct with ≥ 200mm stone wool matt on both sides	EI 120 & E 120
≤ Ø 1250mm damper/duct with ≥ 500mm stone wool matt on both sides	EI 60 & E 90
≤ 600mm high x 1000mm wide damper/duct with ≥ 500mm stone wool matt on both sides	EI 120 & E 120
≤ 1200mm high x 1700mm wide damper/duct with ≥ 500mm stone wool matt on both sides	EI 90 & E 90

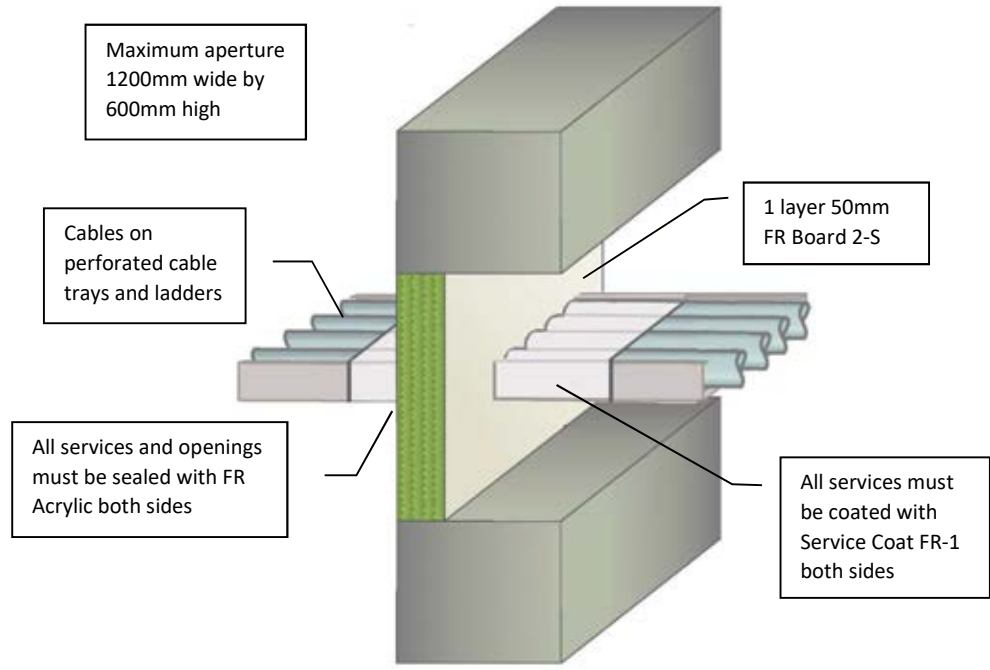
Sound reduction (seal only) 52 dB

**Protecta®**  
Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

Sheet size: <b>A4</b>	Drawn date & no: 27/7/17
Scale: <b>NTS</b>	Drawn by: K.B

**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The board can be positioned to either side of the construction or anywhere in between.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. All cables and cable trays must be coated 150mm each side with 300µ WFT Protecta Service Coat FR-1.
6. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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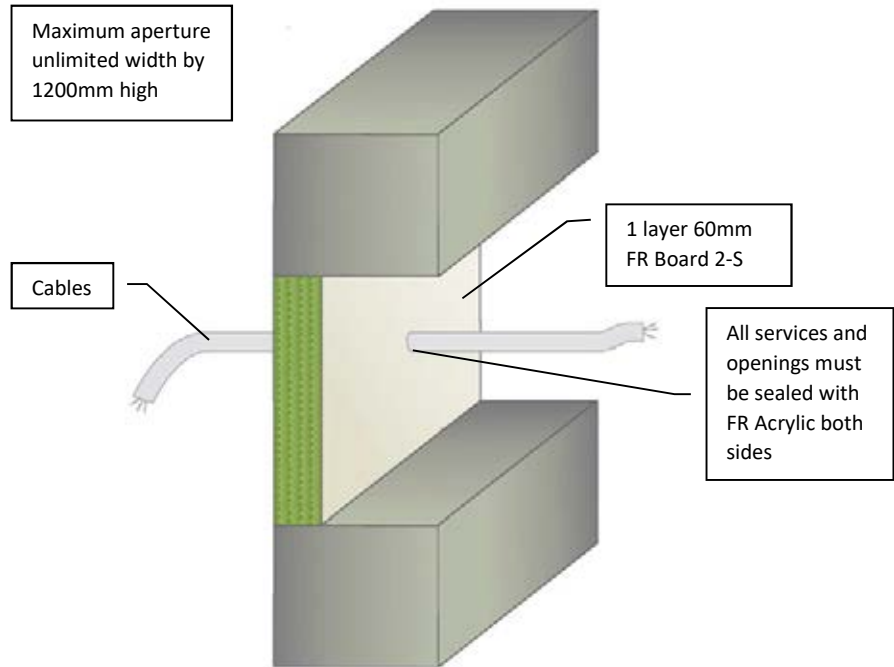
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic Protecta FR ServiceCoat FR-1
<b>Application</b>	Fire stopping of cables on cable trays in rigid walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m <sup>3</sup>
<b>Fire &amp; Sound classification</b>	
Cables ≤ Ø80mm single or bundled on perforated cable trays and ladders EI 60 & E 60	
Sound reduction (seal only) 29 dB	
	
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Sheet size: <b>A4</b>	Drawn date & no: 26/7/17
Scale: <b>NTS</b>	Drawn by: K.B

Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The board can be positioned to either side of the construction or anywhere in between.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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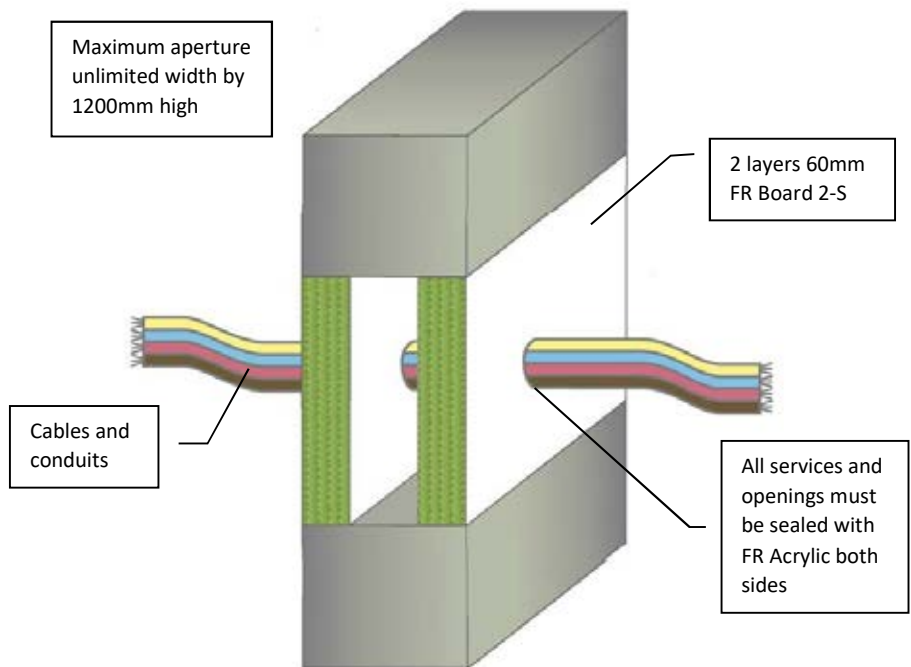
Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of cables in rigid walls
<b>Construction</b>	Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$
<b>Fire &amp; Sound classification</b>	
Cables $\leq \varnothing 21\text{mm}$	EI 90 & E 240
Sound reduction (seal only)	29 dB
Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
<b>A4</b>	20/4/15
Scale:	Drawn by:
<b>NTS</b>	K.B



**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The boards should be flush with the surface of the construction on both sides to maximize the fire resistance. If this is not possible, there should be an air gap of at least 30mm between the boards.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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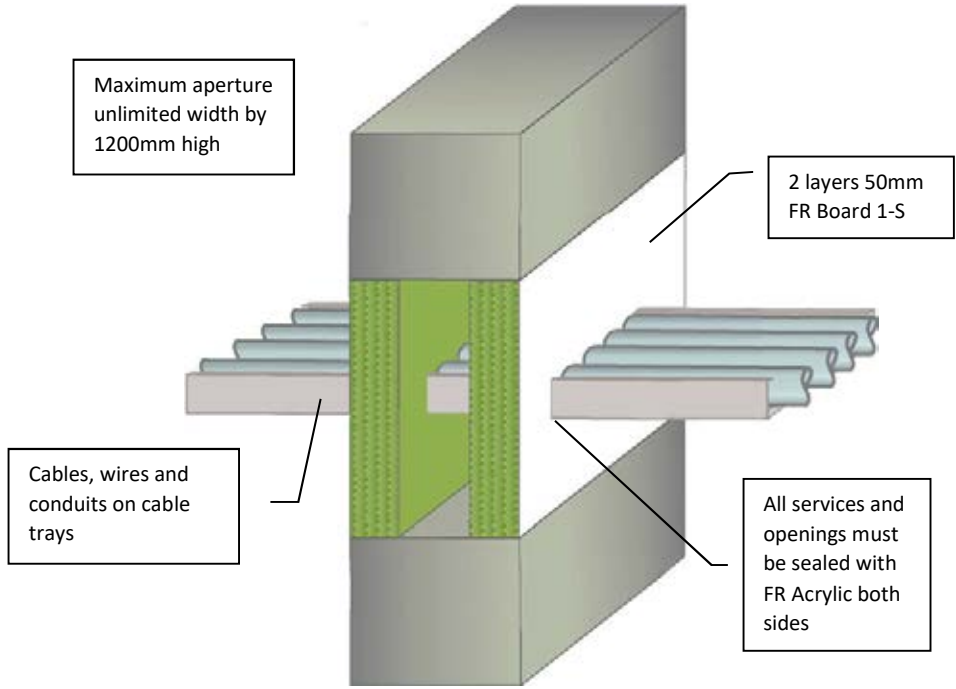
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of cables and conduits in rigid walls
<b>Construction</b>	Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$
<b>Fire &amp; Sound classification</b>	
Cables $\leq \varnothing 21\text{mm}$ , single or in a bundle and PVC conduits $\leq \varnothing 16\text{mm}$ EI 120 & E 240	
Cables $\leq \varnothing 21\text{mm}$ and PVC conduits $\leq \varnothing 16\text{mm}$ EI 180 & E 240	
Sound reduction (seal only) 52 dB	
	
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Sheet size: <b>A4</b>	Drawn date & no: 20/4/15
Scale: <b>NTS</b>	Drawn by: K.B

Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The boards should be flush with the surface of the construction on both sides to maximize the fire resistance.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



As a part of our policy of on-going product development and testing, we reserve the right to modify, alter or change product specifications without giving notice. All information contained in this document is given in good faith and is provided for guidance only. Any drawings provided are for illustrative purposes only. As Polyseam has no control over the methods or competence of installation and of prevailing site conditions, no warranties, expressed or implied, is intended to be given as to the actual performance of the product mentioned or referred to herein and no liability whatsoever will be accepted for any loss, damage or injury arising from the use of the information given.

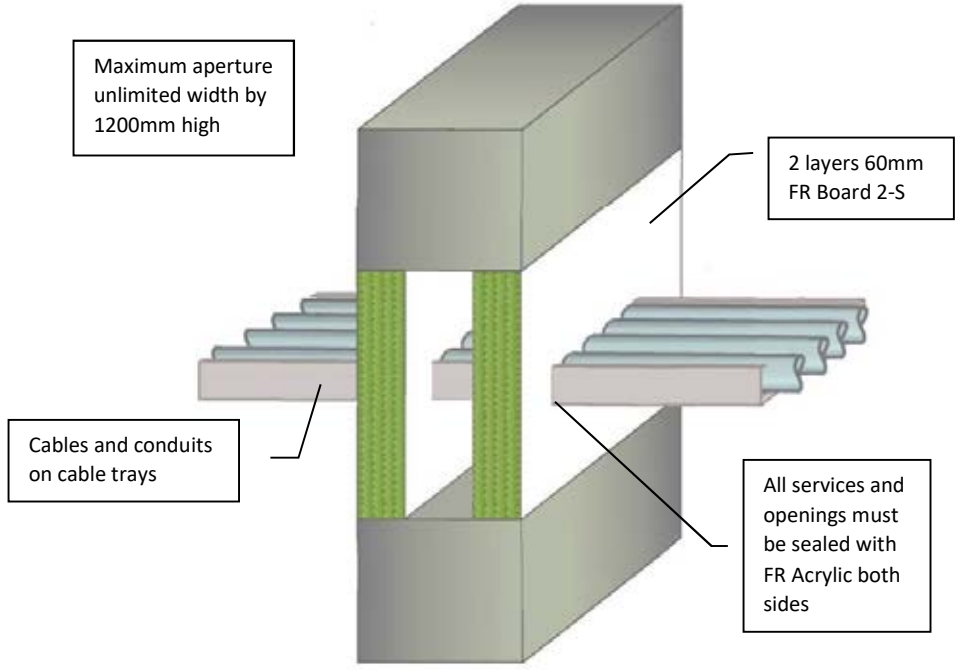
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of cables, wires and conduits on cable trays in rigid walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$
<b>Fire &amp; Sound classification</b>	
Cables $\leq \text{Ø}80\text{mm}$ single or bundled, wires $185\text{mm}^2$ and steel or PVC conduits $\leq \text{Ø}16\text{mm}$ on trays	
EI 60 & E 60	
Sound reduction (seal only)	
52 dB	
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Sheet size:	Drawn date & no:
<b>A4</b>	6/3/19
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The boards should be flush with the surface of the construction on both sides to maximize the fire resistance. If this is not possible, there should be an air gap of at least 30mm between the boards.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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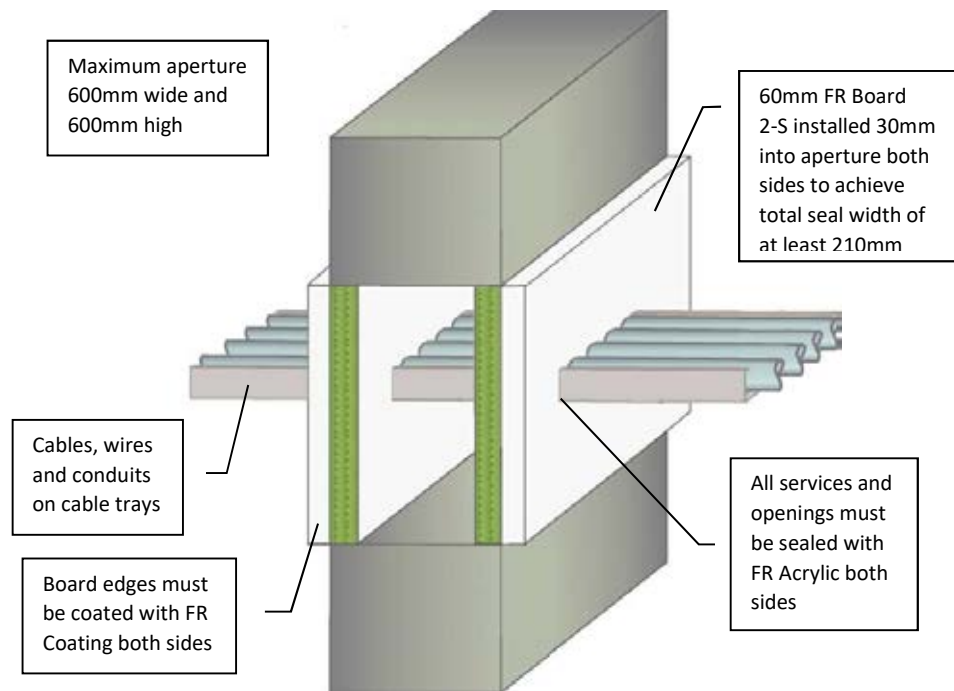
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of cables and conduits on cable trays in rigid walls
<b>Construction</b>	Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$
<b>Fire &amp; Sound classification</b>	
Cables $\leq \varnothing 21\text{mm}$ in tied bundles $\leq \varnothing 100\text{mm}$ and PVC conduits $\leq \varnothing 16\text{mm}$ on $\leq 200 \text{ mm}$ ladders or $\leq 500 \text{ mm}$ non-perforated trays EI 120 & E 180	
Cables $\leq \varnothing 80\text{mm}$ , single, bundled and on trays EI 60 & E 180	
Sound reduction (seal only) 52 dB	
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Sheet size: <b>A4</b>	Drawn date & no: 20/4/15
Scale: <b>NTS</b>	Drawn by: K.B

**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
3. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
4. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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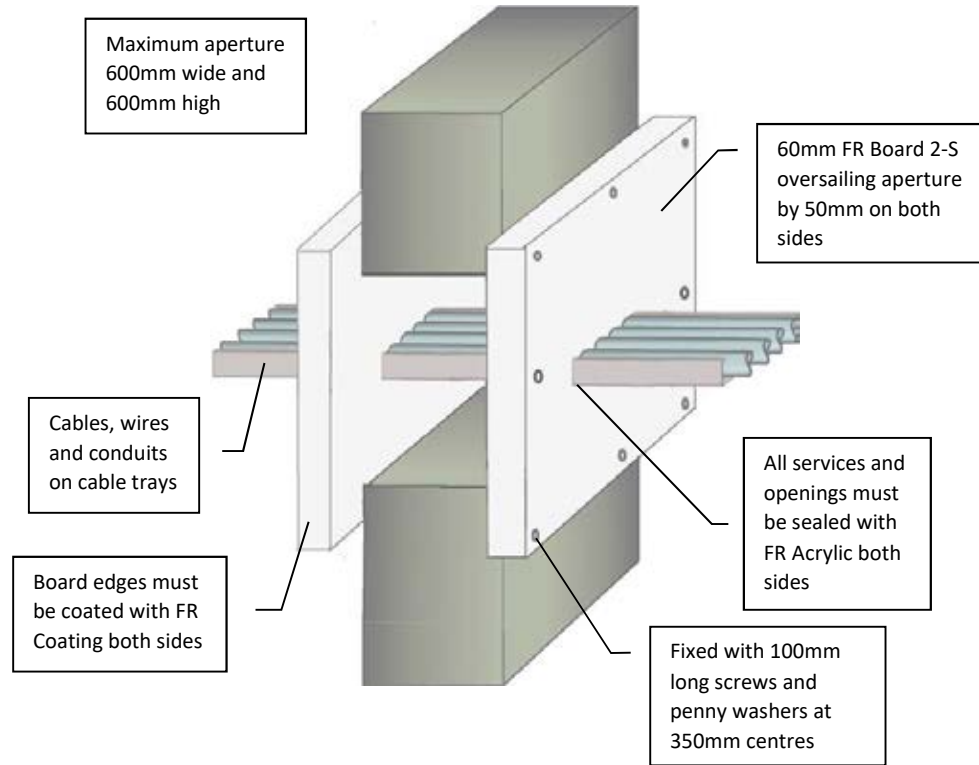
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic Protecta FR Coating
<b>Application</b>	Fire stopping of cables, wires and conduits on cable trays in rigid walls
<b>Construction</b>	Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$
<b>Fire &amp; Sound classification</b>	
Cables $\leq \varnothing 21\text{mm}$ in tied bundles $\leq \varnothing 100\text{mm}$ on trays	EI 240 & E 240
Cables $\leq \varnothing 21\text{mm}$ , single, bundled and wires $\leq 95\text{mm}^2$ on trays	EI 120 & E 240
Cables $\leq \varnothing 80\text{mm}$ , single, bundled and wires $\leq 185\text{mm}^2$ on trays	EI 60 & E 240
Sound reduction (seal only)	53 dB
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Sheet size:	Drawn date & no:
<b>A4</b>	20/4/15
Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
3. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
4. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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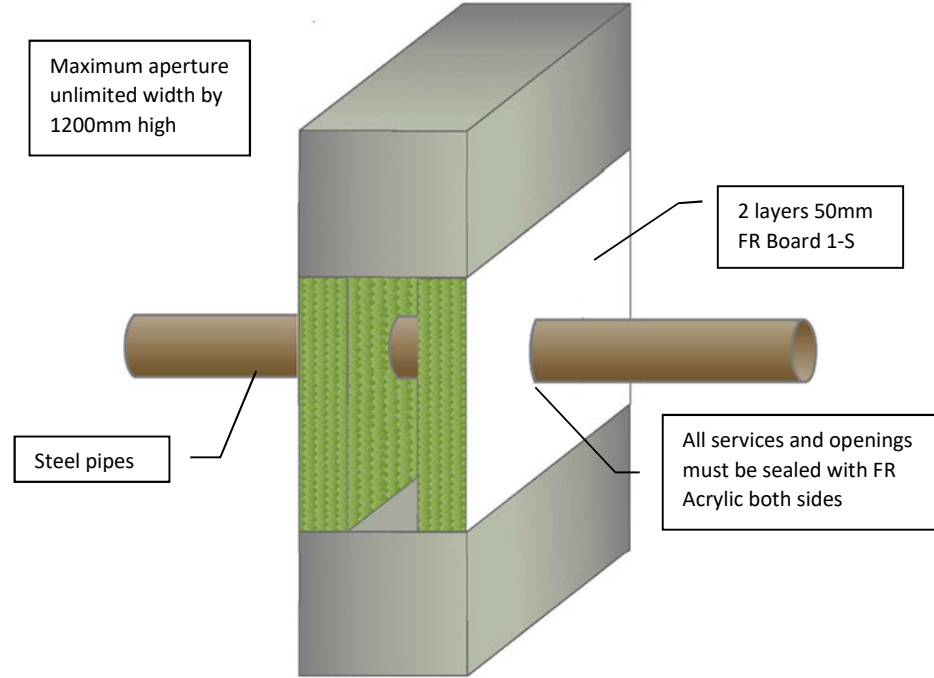
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Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic Protecta FR Coating
<b>Application</b>	Fire stopping of cables, wires and conduits on cable trays in rigid walls
<b>Construction</b>	Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$
<b>Fire &amp; Sound classification</b>	
Cables $\leq \varnothing 21\text{mm}$ in tied bundles $\leq \varnothing 100\text{mm}$ on trays	EI 240 & E 240
Cables $\leq \varnothing 50\text{mm}$ , single, bundled and wires $\leq 185\text{mm}^2$ on trays	EI 90 & E 240
Cables $\leq \varnothing 80\text{mm}$ , single, bundled and on trays	EI 60 & E 240
Sound reduction (seal only)	53 dB
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Sheet size:	Drawn date & no:
<b>A4</b>	20/4/15
Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Protecta® FR Coating and Protecta® FR Acrylic are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. The boards should be flush with the surface of the construction on both sides to maximize the fire resistance.
4. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
5. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
6. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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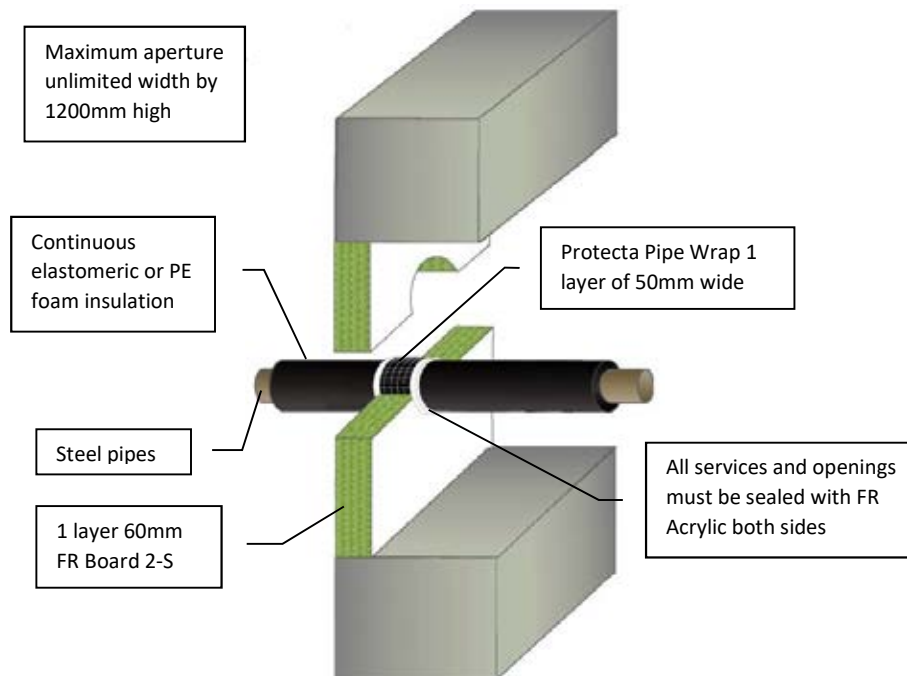
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of un-insulated steel pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$
<b>Fire &amp; Sound classification</b>	
Steel pipes $\leq \text{Ø}22\text{mm}$	EI 60 C/U & E 120 C/U
Steel pipes $\leq \text{Ø}114\text{mm}$	EI 20 C/U & E 90 C/U
Sound reduction (seal only)	52 dB
	
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<b>A4</b>	26/7/17
Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The board can be positioned to either side of the construction or anywhere in between.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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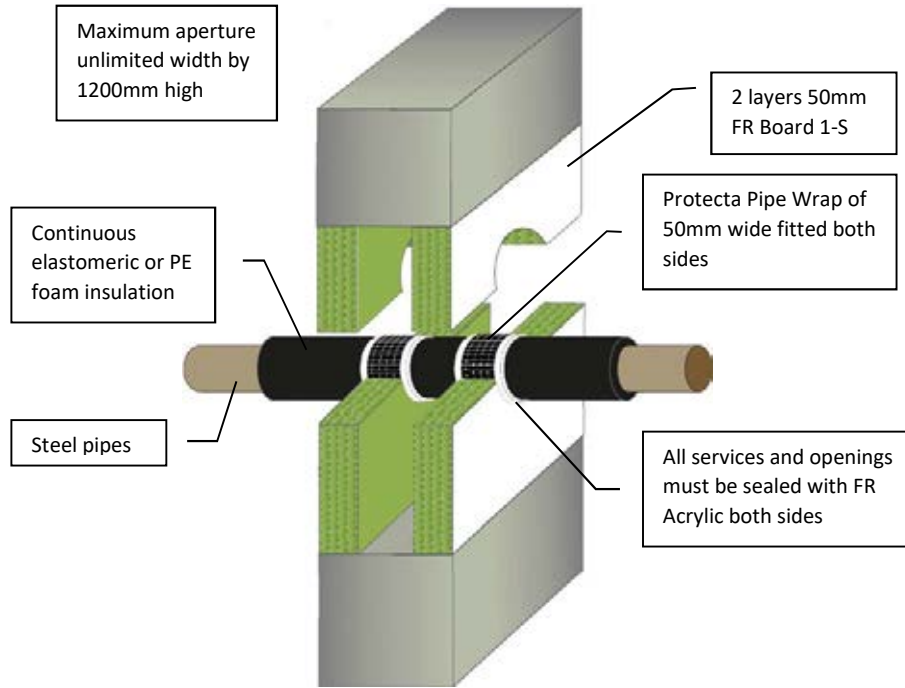
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Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic Protecta FR Pipe Wrap 25m
<b>Application</b>	Fire stopping of insulated steel pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$
<b>Fire &amp; Sound classification</b>	
Steel pipes $\leq \text{Ø}165\text{mm}$ with 9 - 25mm continuous foam insulation EI 45 U/C & E 120 U/C	
Sound reduction (seal only)	29 dB
	
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Sheet size:	Drawn date & no:
<b>A4</b>	5/3/19
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The boards should be flush with the surface of the construction on both sides to maximize the fire resistance.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:

Job Title:

<b>Products</b>	Protecta FR Board Protecta FR Acrylic Protecta FR Pipe Wrap 25m
<b>Application</b>	Fire stopping of insulated steel pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$

**Fire & Sound classification**

Steel pipes $\leq \text{Ø}40\text{mm}$ with 13mm continuous foam insulation and 2 layers of pipe wrap	EI 120 U/U & E 120 U/U
Steel pipes $\leq \text{Ø}165\text{mm}$ with 13 - 32mm continuous foam insulation and 2 layers of pipe wrap	EI 60 U/U & E 120 U/U
Steel pipes $\leq \text{Ø}324\text{mm}$ with 32 - 50mm continuous foam insulation and 3 layers of pipe wrap	EI 90 C/U & E 90 C/U

Sound reduction (seal only) 52 dB

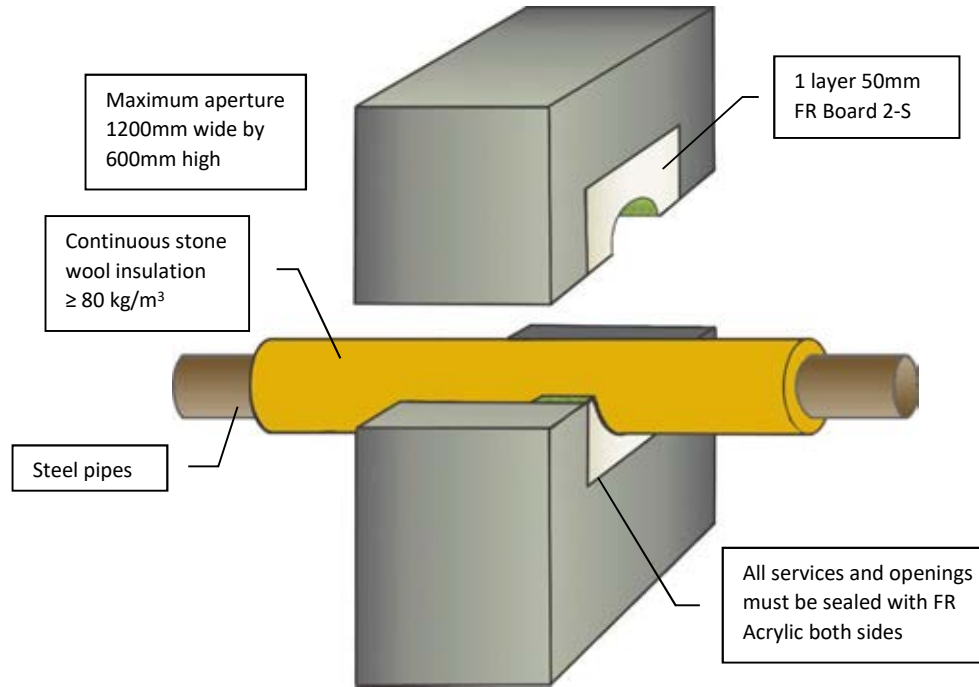
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Tel: +44 (0) 148 4421036  
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

Sheet size: <b>A4</b>	Drawn date & no: 18/3/19
Scale: <b>NTS</b>	Drawn by: K.B



**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The board can be positioned to either side of the construction or anywhere in between.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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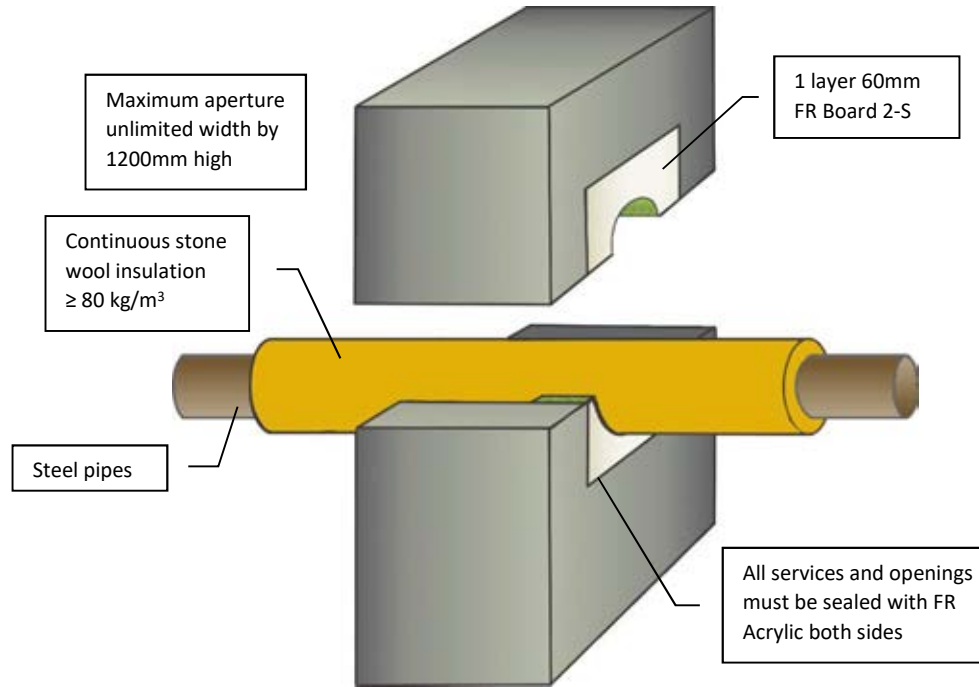
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of insulated steel pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$
<b>Fire &amp; Sound classification</b>	
Steel pipes $\leq \text{Ø}324\text{mm}$ with 20-30mm continuous stone wool insulation EI 60 C/U & E 90 C/U	
Sound reduction (seal only)	29 dB
	
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Sheet size:	Drawn date & no:
<b>A4</b>	20/4/15
Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The board can be positioned to either side of the construction or anywhere in between.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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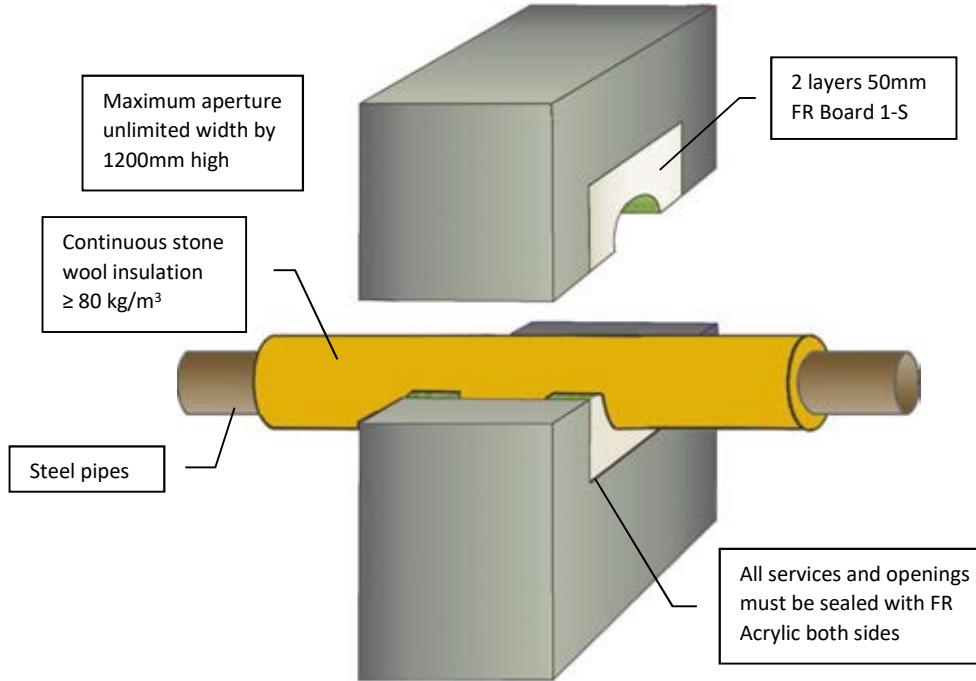
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of insulated steel pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$
<b>Fire &amp; Sound classification</b>	
Steel pipes $\leq \text{Ø}219\text{mm}$ with 30mm continuous stone wool insulation EI 60 C/U & E 240 C/U	
Steel pipes $\text{Ø}325\text{mm}$ with 30mm continuous stone wool insulation EI 90 C/U & E 120 C/U	
Sound reduction (seal only) 29 dB	
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
<b>A4</b>	26/7/17
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Protecta® FR Coating and Protecta® FR Acrylic are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. The boards should be flush with the surface of the construction on both sides to maximize the fire resistance.
4. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
5. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
6. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.




ETA 13/0673 & 18/0855

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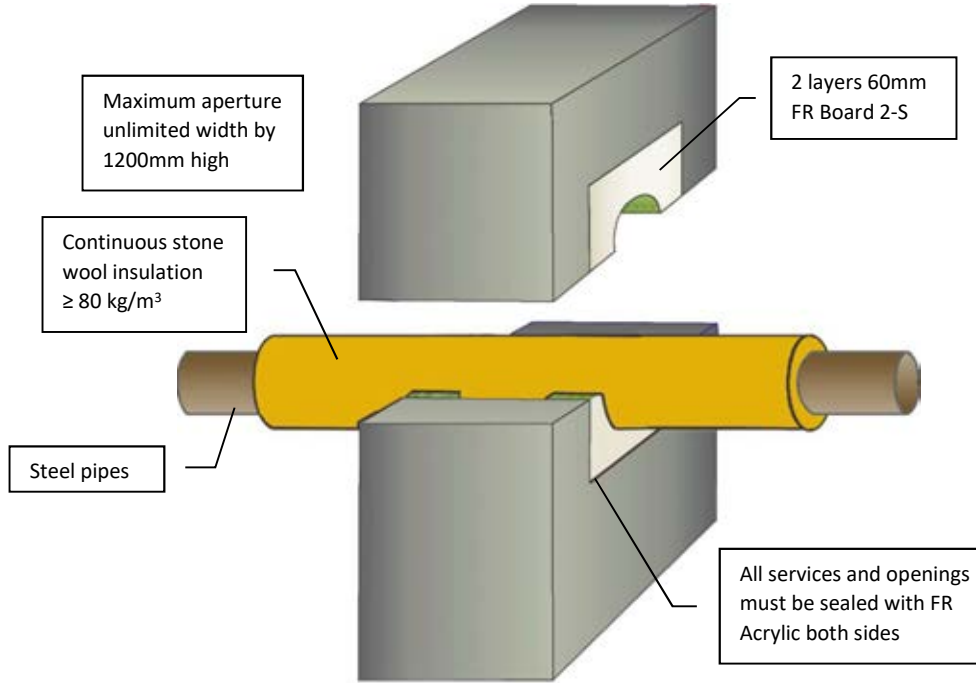
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of insulated steel pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$
<b>Fire &amp; Sound classification</b>	
Steel pipes $\leq \text{Ø}324\text{mm}$ with 20-80mm continuous stone wool insulation EI 120 C/U & E 120 C/U	
Sound reduction (seal only)	52 dB
	
Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
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<b>A4</b>	16/1/17
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Protecta® FR Coating and Protecta® FR Acrylic are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. The boards should be flush with the surface of the construction on both sides to maximize the fire resistance. If this is not possible, there should be an air gap of at least 30mm between the boards.
4. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
5. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
6. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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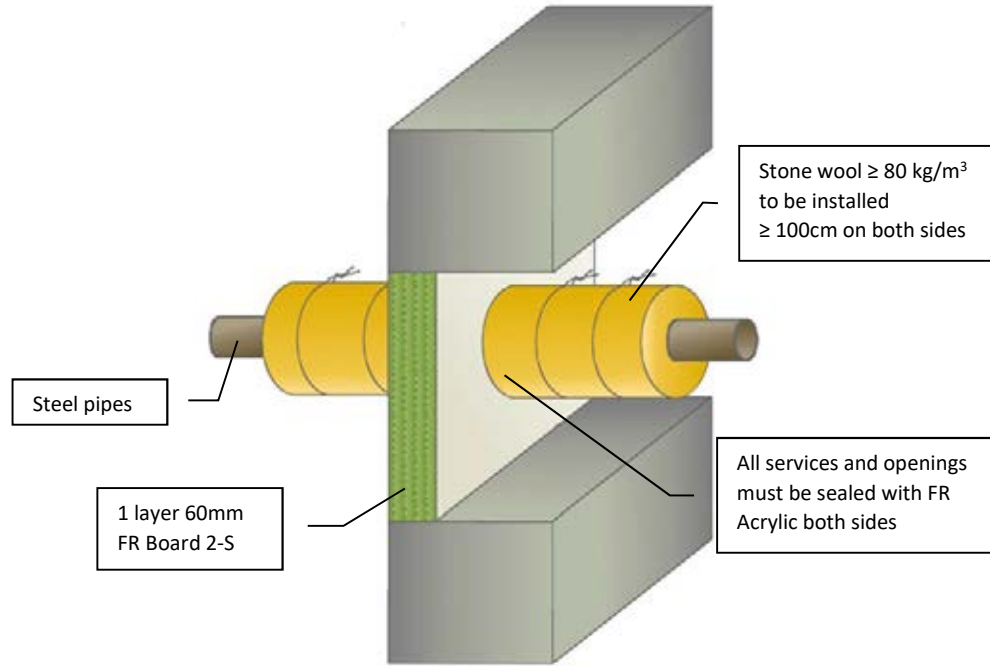
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of insulated steel pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$
<b>Fire &amp; Sound classification</b>	
Steel pipes $\leq \text{Ø}324\text{mm}$ with 20-80mm continuous stone wool insulation EI 180 C/U & E 240 C/U	
Sound reduction (seal only)	52 dB
	
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<b>A4</b>	9/1/17
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Protecta® FR Coating and Protecta® FR Acrylic are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. The board can be positioned to either side of the construction or anywhere in between.
4. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
5. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
6. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:

Job Title:

<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of insulated steel pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$

<b>Fire &amp; Sound classification</b>	
<u>Steel pipes <math>\leq \text{Ø}40\text{mm}</math></u> with $\geq 20\text{mm}$ stone wool insulation in maximum aperture 280mm wide and 280mm high	EI 240 C/U & E 240 C/U
<u>Steel pipes <math>\leq \text{Ø}40\text{mm}</math></u> with $\geq 20\text{mm}$ stone wool insulation in maximum aperture unlimited width by 1200mm high	EI 90 C/U & E 240 C/U
<u>Steel pipes <math>\leq \text{Ø}219\text{mm}</math></u> with $\geq 30\text{mm}$ stone wool insulation in maximum aperture 280mm wide and 280mm high	EI 240 C/U & E 240 C/U
<u>Steel pipes <math>\leq \text{Ø}219\text{mm}</math></u> with $\geq 30\text{mm}$ stone wool insulation in maximum aperture unlimited width by 1200mm high	EI 90 C/U & E 240 C/U

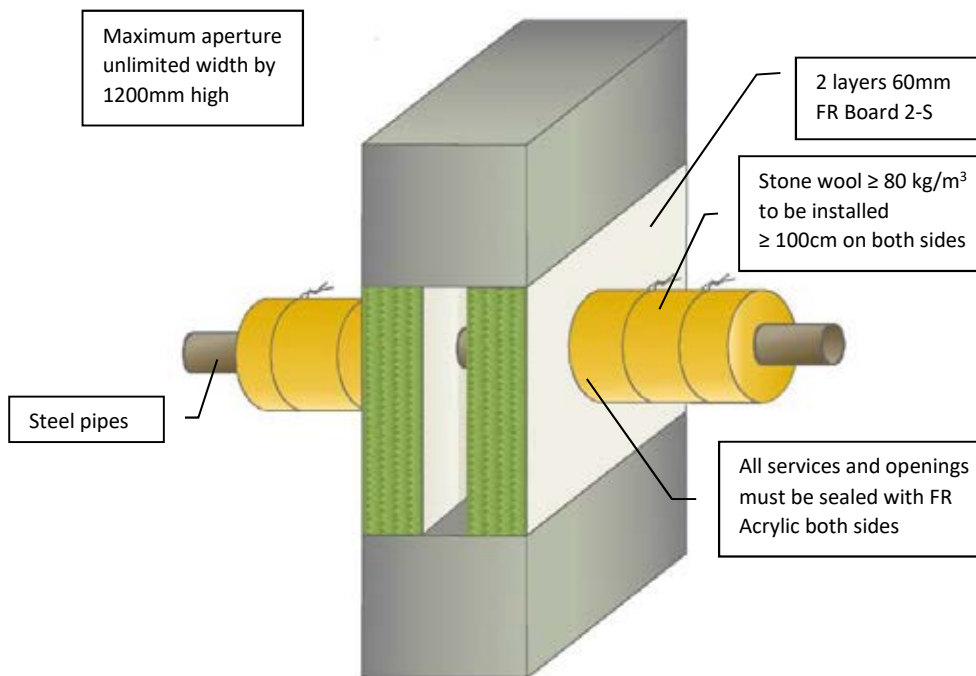
Sound reduction (seal only) 29 dB

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Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

Sheet size:	Drawn date & no:
<b>A4</b>	20/4/15
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

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2. Protecta® FR Coating and Protecta® FR Acrylic are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. The boards should be flush with the surface of the construction on both sides to maximize the fire resistance. If this is not possible, there should be an air gap of at least 30mm between the boards.
4. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
5. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
6. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**


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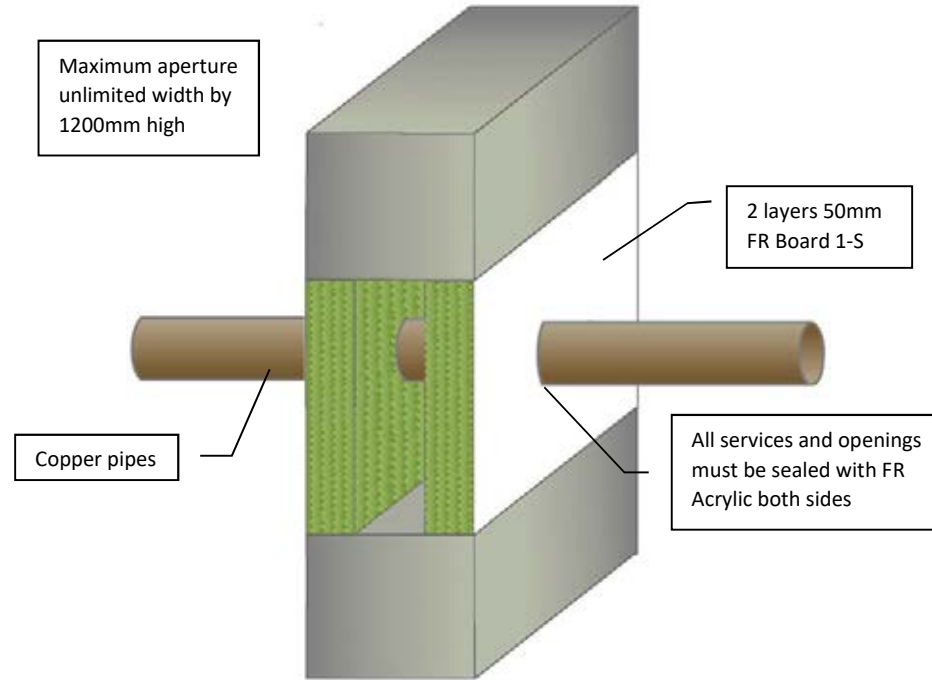
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Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of insulated steel pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$
<b>Fire &amp; Sound classification</b>	
Steel pipes $\leq \varnothing 40\text{mm}$ with $\geq 20\text{mm}$ stone wool insulation	EI 180 C/U & E 240 C/U
Steel pipes $\leq \varnothing 219\text{mm}$ with $\geq 30\text{mm}$ stone wool insulation	EI 180 C/U & E 240 C/U
Sound reduction (seal only)	52 dB
	
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<b>A4</b>	20/4/15
Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Protecta® FR Coating and Protecta® FR Acrylic are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. The boards should be flush with the surface of the construction on both sides to maximize the fire resistance.
4. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
5. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
6. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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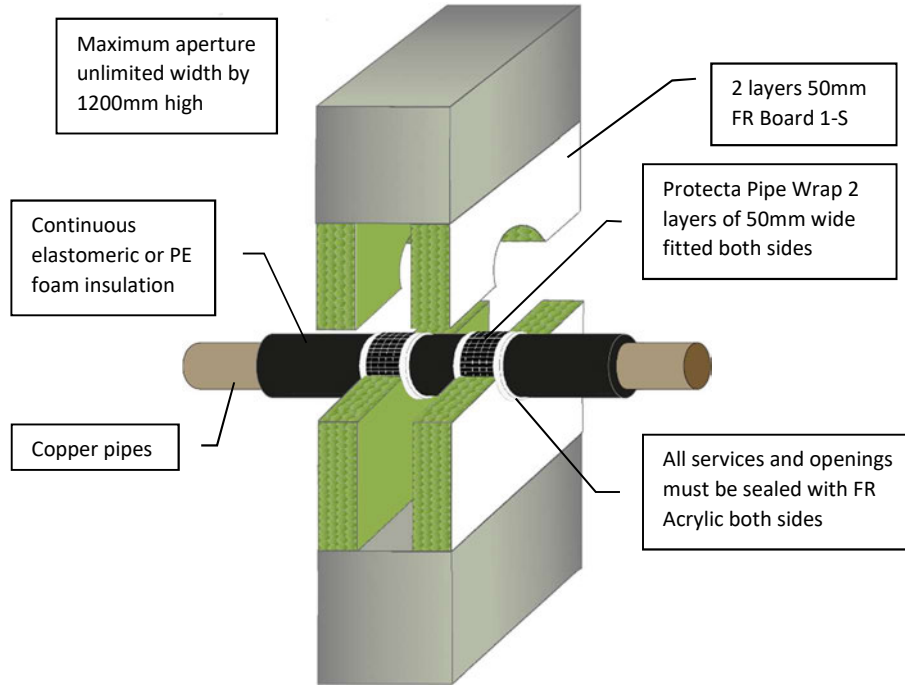
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of un-insulated copper pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$
<b>Fire &amp; Sound classification</b>	
Copper pipes $\leq \text{Ø}6\text{mm}$	EI 60 C/C & E 120 C/C
Sound reduction (seal only)	52 dB
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<b>A4</b>	26/7/17
Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The boards should be flush with the surface of the construction on both sides to maximize the fire resistance.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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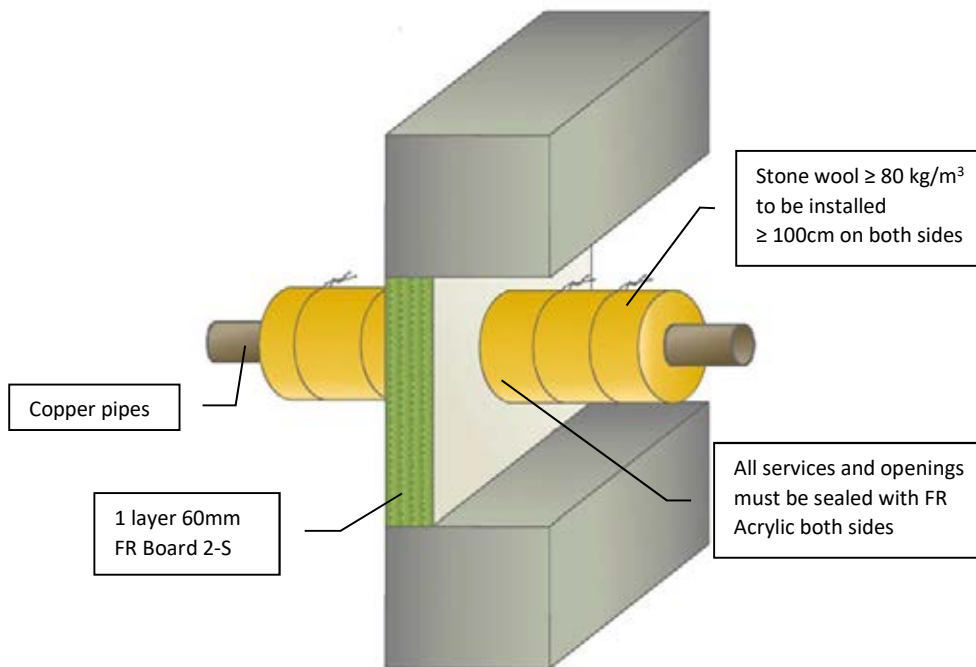
Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic Protecta FR Pipe Wrap 25m
<b>Application</b>	Fire stopping of insulated copper pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$
<b>Fire &amp; Sound classification</b>	
Copper pipes $\leq \varnothing 12\text{mm}$ with 9mm continuous foam insulation	EI 120 C/C & E 120 C/C
Copper pipes $\leq \varnothing 54\text{mm}$ with 9 - 13mm continuous foam insulation	EI 90 C/C & E 120 C/C
Copper pipes $\leq \varnothing 54\text{mm}$ with 14 - 25mm continuous foam insulation	EI 60 C/C & E 120 C/C
Sound reduction (seal only)	52 dB
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<b>A4</b>	5/3/19
Scale:	Drawn by:
<b>NTS</b>	K.B



Installation Instructions

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2. Protecta® FR Coating and Protecta® FR Acrylic are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. The board can be positioned to either side of the construction or anywhere in between.
4. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
5. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
6. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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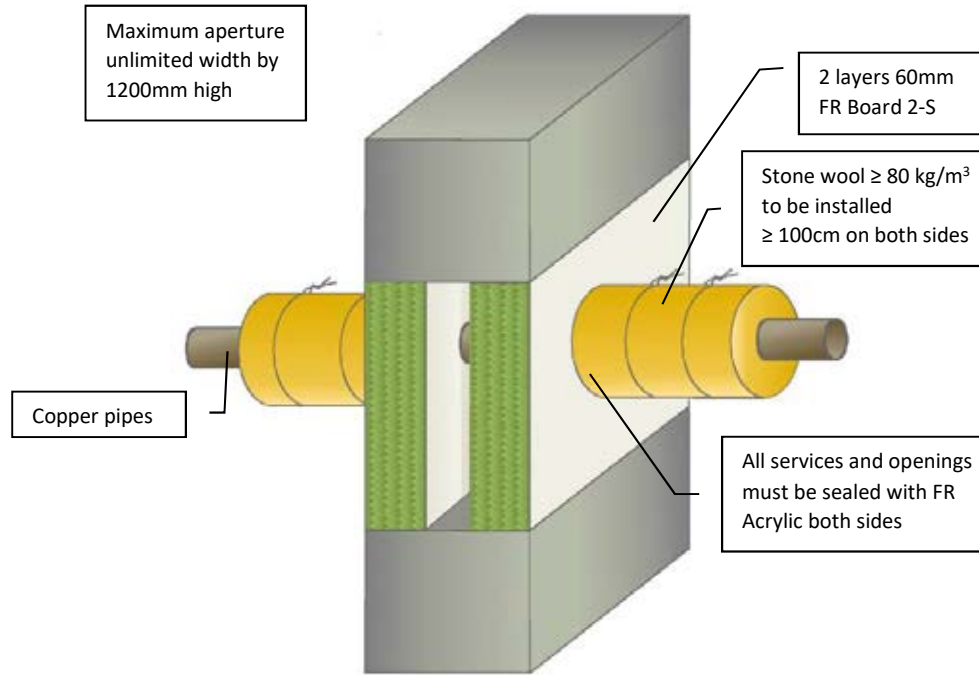
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of insulated copper pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$
<b>Fire &amp; Sound classification</b>	
Copper pipes $\leq \varnothing 12\text{mm}$ with $\geq 20\text{mm}$ stone wool insulation in maximum aperture 70mm wide and 70mm high EI 240 C/U & E 240 C/U	
Copper pipes $\leq \varnothing 54\text{mm}$ with $\geq 20\text{mm}$ stone wool insulation in maximum aperture 115mm wide and 115mm high EI 120 C/U & E 240 C/U	
Copper pipes $\leq \varnothing 54\text{mm}$ with $\geq 20\text{mm}$ stone wool insulation in maximum aperture unlimited width by 1200mm high EI 90 C/U & E 240 C/U	
Sound reduction (seal only)	29 dB
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Sheet size:	Drawn date & no:
<b>A4</b>	20/4/15
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

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2. Protecta® FR Coating and Protecta® FR Acrylic are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. The boards should be flush with the surface of the construction on both sides to maximize the fire resistance. If this is not possible, there should be an air gap of at least 30mm between the boards.
4. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
5. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
6. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

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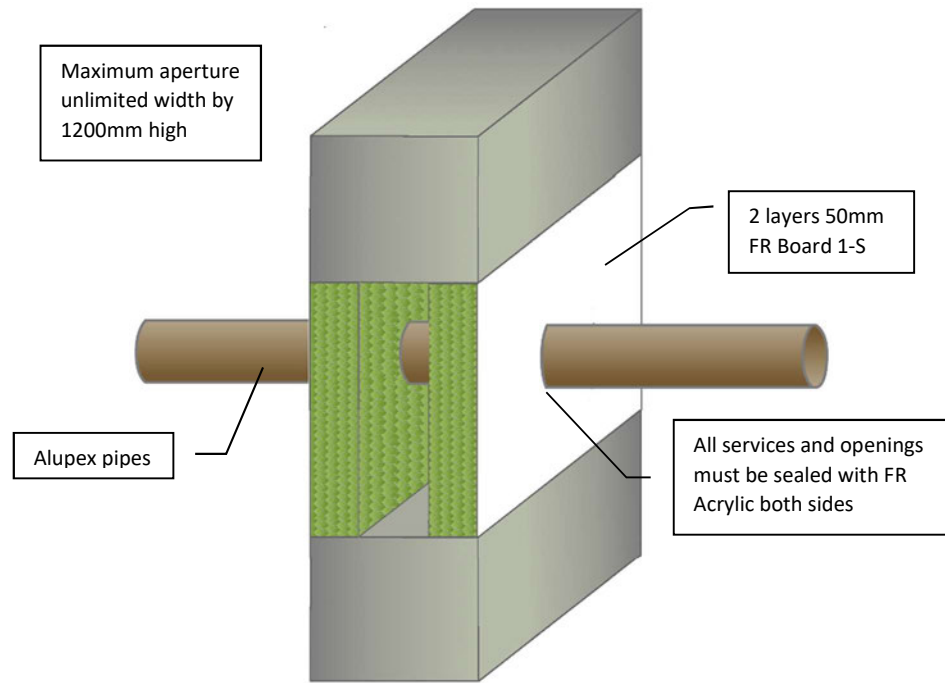
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of insulated copper pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$
<b>Fire &amp; Sound classification</b>	
Copper pipes $\leq \text{Ø}54\text{mm}$ with $\geq 20\text{mm}$ stone wool insulation	
EI 120 C/U & E 240 C/U	
Sound reduction (seal only)	
52 dB	
Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
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<b>A4</b>	20/4/15
Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

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4. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
5. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
6. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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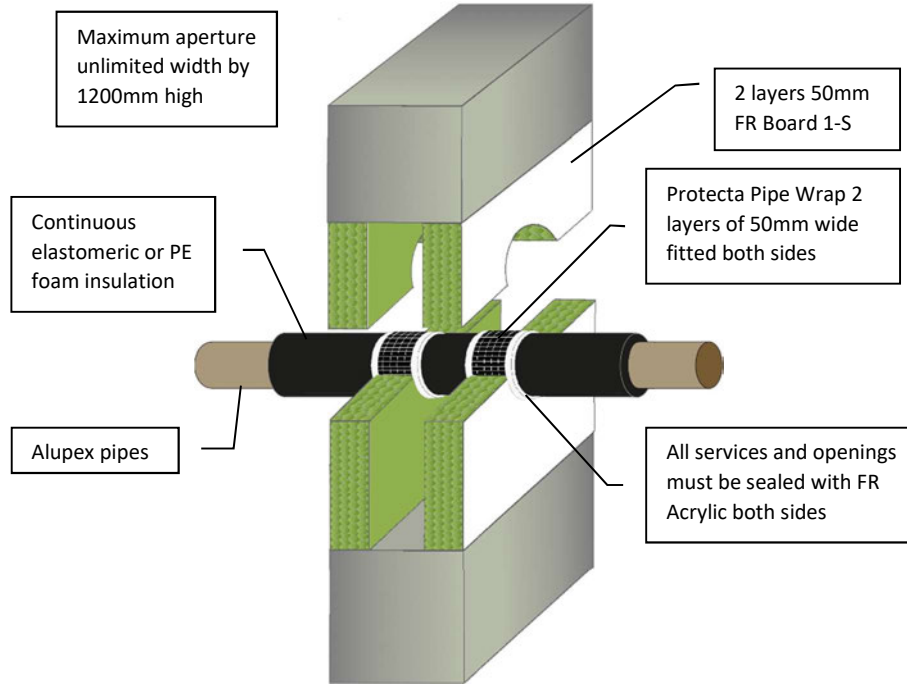
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of un-insulated alupex pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$
<b>Fire &amp; Sound classification</b>	
Alupex pipes $\leq \varnothing 20\text{mm}$ EI 120 C/C & E 120 C/C	
Sound reduction (seal only) 52 dB	
	
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Sheet size: <b>A4</b>	Drawn date & no: 26/7/17
Scale: <b>NTS</b>	Drawn by: K.B

**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The boards should be flush with the surface of the construction on both sides to maximize the fire resistance.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.




ETA 13/0673 & 18/0855

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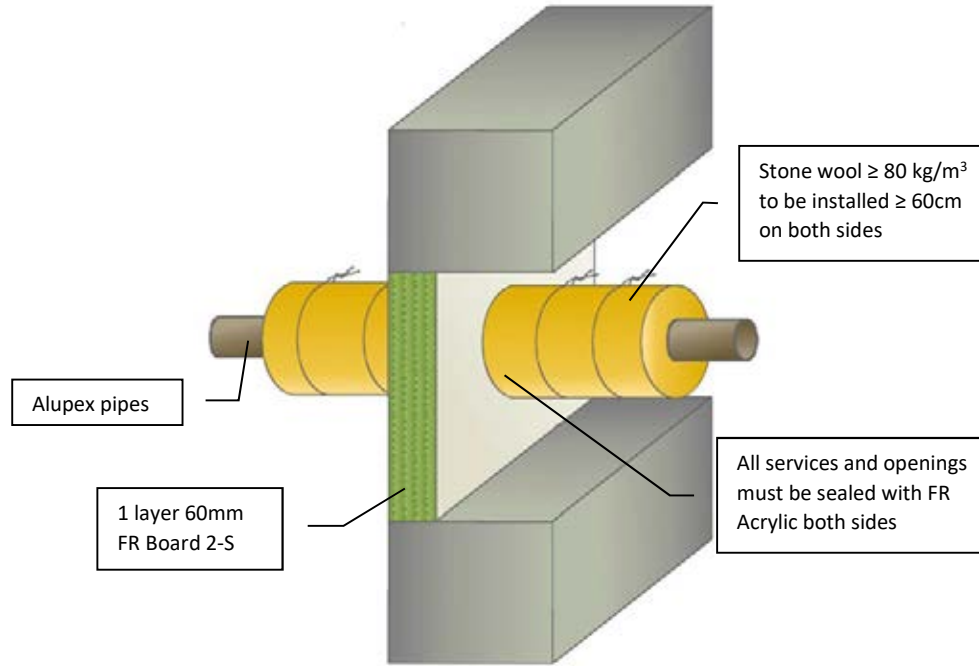
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic Protecta FR Pipe Wrap 25m
<b>Application</b>	Fire stopping of insulated alupex pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$
<b>Fire &amp; Sound classification</b>	
Alupex pipes $\leq \varnothing 75\text{mm}$ with 9 - 25mm continuous foam insulation EI 120 C/C & E 120 C/C	
Sound reduction (seal only)	52 dB
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
<b>A4</b>	5/3/19
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Protecta® FR Coating and Protecta® FR Acrylic are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. The board can be positioned to either side of the construction or anywhere in between.
4. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
5. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
6. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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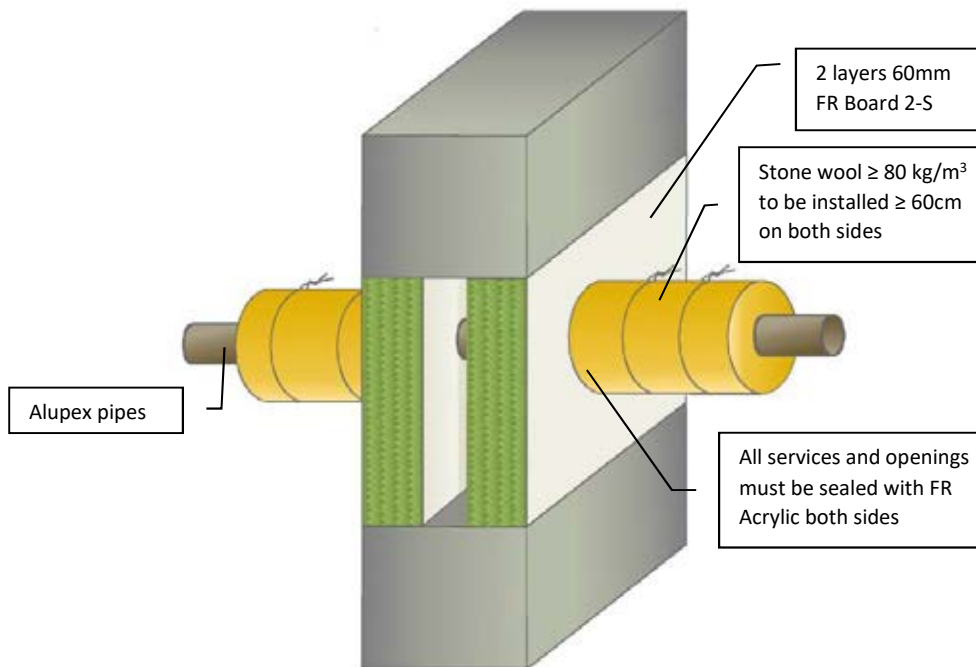
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of insulated alupex pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$
<b>Fire &amp; Sound classification</b>	
Alupex pipes $\leq \text{Ø}75\text{mm}$ with $\geq 30\text{mm}$ stone wool insulation in maximum aperture 200mm wide and 200mm high EI 120 C/C & E 120 C/C	
Alupex pipes $\leq \text{Ø}75\text{mm}$ with $\geq 30\text{mm}$ stone wool insulation in maximum aperture unlimited width by 1200mm high EI 90 C/C & E 120 C/C	
Sound reduction (seal only)	29 dB
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Sheet size:	Drawn date & no:
<b>A4</b>	20/4/15
Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Protecta® FR Coating and Protecta® FR Acrylic are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. The boards should be flush with the surface of the construction on both sides to maximize the fire resistance. If this is not possible, there should be an air gap of at least 30mm between the boards.
4. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
5. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
6. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.




ETA 13/0673 & 18/0855

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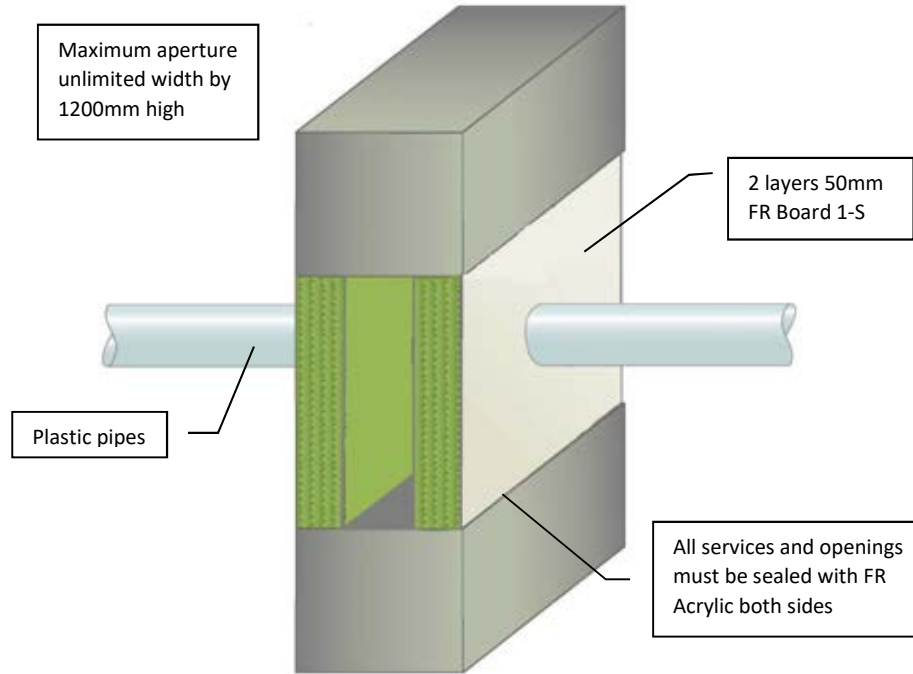
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of insulated alupex pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$
<b>Fire &amp; Sound classification</b>	
Alupex pipes $\leq \text{Ø}16\text{mm}$ with $\geq 30\text{mm}$ stone wool insulation in maximum aperture 1200mm wide and 1200mm high EI 240 U/C & E 240 U/C	
Alupex pipes $\leq \text{Ø}16\text{mm}$ with $\geq 30\text{mm}$ stone wool insulation in maximum aperture unlimited width by 1200mm high EI 180 U/C & E 240 U/C	
Alupex pipes $\leq \text{Ø}75\text{mm}$ with $\geq 30\text{mm}$ stone wool insulation in maximum aperture unlimited width by 1200mm high EI 120 C/C & E 120 C/C	
Sound reduction (seal only)	52 dB
	
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Sheet size:	Drawn date & no:
<b>A4</b>	20/4/15
Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The boards should be flush with the surface of the construction on both sides to maximize the fire resistance.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:

Job Title:

<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Application</b>	Fire stopping of plastic pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$

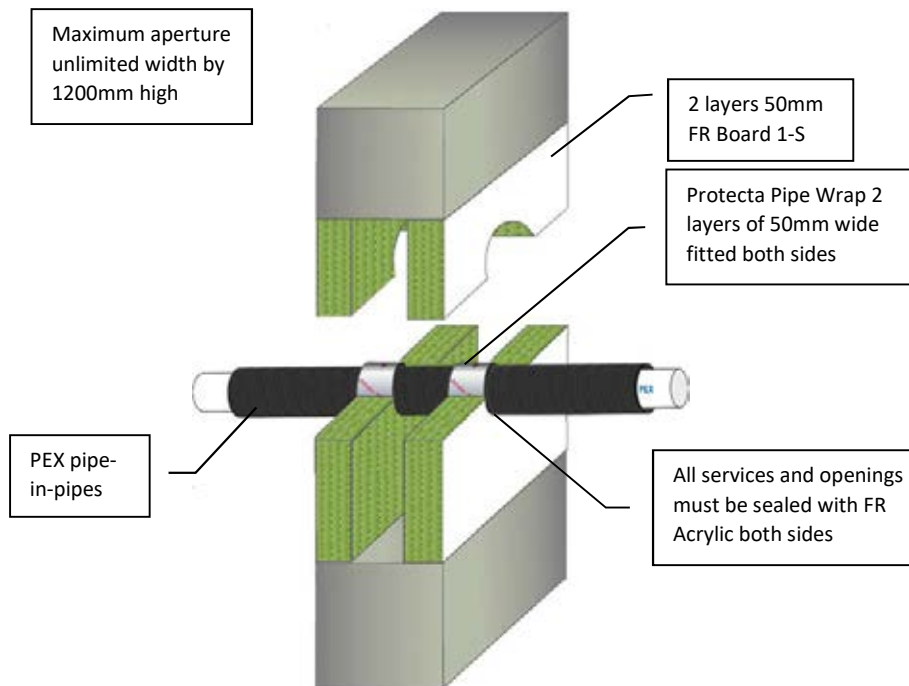
<b>Fire &amp; Sound classification</b>	
PEX pipe-in-pipe $\leq \varnothing 25\text{mm}$	EI 90 C/C & E 90 C/C
PVC-U and PVC-C pipes $\leq \varnothing 32\text{mm}$ with wall thickness 1.0-2.4mm	EI 60 U/C & E 90 U/C
PE, ABS and SAN+PVC pipes $\leq \varnothing 32\text{mm}$ with wall thickness 2.0-3.0mm	EI 60 U/C & E 60 U/C
PP pipes $\leq \varnothing 32\text{mm}$ with wall thickness 1.8-2.2mm	EI 60 U/C & E 120 U/C
Sound reduction (seal only)	52 dB

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Tel: +44 (0) 148 4421036  
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

Sheet size:	Drawn date & no:
<b>A4</b>	5/3/19
Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The boards should be flush with the surface of the construction on both sides to maximize the fire resistance.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.




ETA 13/0673 & 18/0855

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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

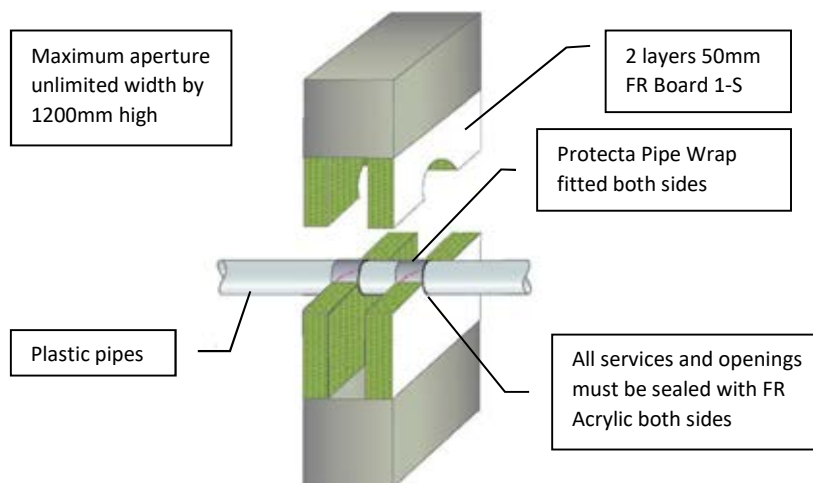
Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta FR Board Protecta FR Acrylic Protecta FR Pipe Wrap
<b>Application</b>	Fire stopping of PEX pipe-in-pipes in rigid walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$
<b>Fire &amp; Sound classification</b>	
PEX pipe-in-pipes $\leq \text{Ø}54\text{mm}$ EI 120 C/C & E 120 C/C	
PEX pipe-in-pipes $\leq \text{Ø}25\text{mm}$ in bundles $\leq \text{Ø}50\text{mm}$ EI 90 C/C & E 90 C/C	
Sound reduction (seal only) 52 dB	
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Sheet size:	Drawn date & no:
<b>A4</b>	5/3/19
Scale:	Drawn by:
<b>NTS</b>	K.B



### Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The boards should be flush with the surface of the construction on both sides to maximize the fire resistance.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



Services	Pipe Wall Thickness	FR Pipe Wrap	Classification
≤ Ø 40mm PVC-U & PVC-C	1.9 – 3.0mm	50 x 1.8mm (1 layer)	EI 120 U/U (E 120 U/U)
≤ Ø 40mm PE, ABS & SAN+PVC	2.4 – 3.7mm	50 x 1.8mm (1 layer)	EI 120 U/U (E 120 U/U)
≤ Ø 40mm PP	1.8 – 5.5mm	50 x 1.8mm (1 layer)	EI 120 U/U (E 120 U/U)
≤ Ø 110mm PVC-U & PVC-C	2.7 – 6.6mm	50 x 3.6mm (2 layers)	EI 90 U/C (E 120 U/C)
≤ Ø 110mm PE, ABS & SAN+PVC	4.2 – 10.0mm	50 x 3.6mm (2 layers)	EI 90 U/C (E 120 U/C)
≤ Ø 110mm PP	2.7 – 15.1mm	50 x 3.6mm (2 layers)	EI 90 U/U (E 90 U/U)
≤ Ø 125mm PVC-U & PVC-C	3.7 – 7.4mm	50 x 5.4mm (3 layers)	EI 90 U/C (E 120 U/C)
≤ Ø 125mm PE, ABS & SAN+PVC	4.8 – 12.0mm	50 x 5.4mm (3 layers)	EI 90 U/C (E 120 U/C)
≤ Ø 125mm PP	3.1 – 17.1mm	50 x 5.4mm (3 layers)	EI 90 U/C (E 120 U/C)
≤ Ø 160mm PVC-U & PVC-C	9.5mm	50 x 7.2mm (4 layers)	EI 90 U/C (E 120 U/C)
≤ Ø 160mm PE, ABS & SAN+PVC	14.6mm	50 x 7.2mm (4 layers)	EI 90 U/C (E 120 U/C)
≤ Ø 160mm PP	21.9mm	50 x 7.2mm (4 layers)	EI 90 U/C (E 120 U/C)
≤ Ø 200mm PVC-U & PVC-C	9.0 – 10.2mm	50 x 18.0mm (10 layers)	EI 90 C/C (E 90 C/C)
≤ Ø 250mm PVC-U & PVC-C	8.5 – 11.0mm	50 x 18.0mm (10 layers)	EI 90 C/C (E 90 C/C)
≤ Ø 315mm PVC-U & PVC-C	7.7 – 12.1mm	50 x 18.0mm (10 layers)	EI 90 C/C (E 90 C/C)
≤ Ø 400mm PVC-U & PVC-C	9.8 – 15.3mm	50 x 28.8mm (16 layers)	EI 90 C/C (E 90 C/C)

**Minimum separations and limitations** An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services should not exceed 60% of the penetration area.



ETA 13/0673 & 18/0855

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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:

Job Title:

**Products** Protecta FR Board  
Protecta FR Acrylic  
Protecta FR Pipe Wrap 25m

**Application** Fire stopping of plastic pipes in rigid walls

**Construction** Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m<sup>3</sup>

### Fire & Sound classification

For fire classifications please see the table on the left.

Sound reduction (seal only)

52 dB



**Protecta®**

Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB

Tel: +44 (0) 148 4421036

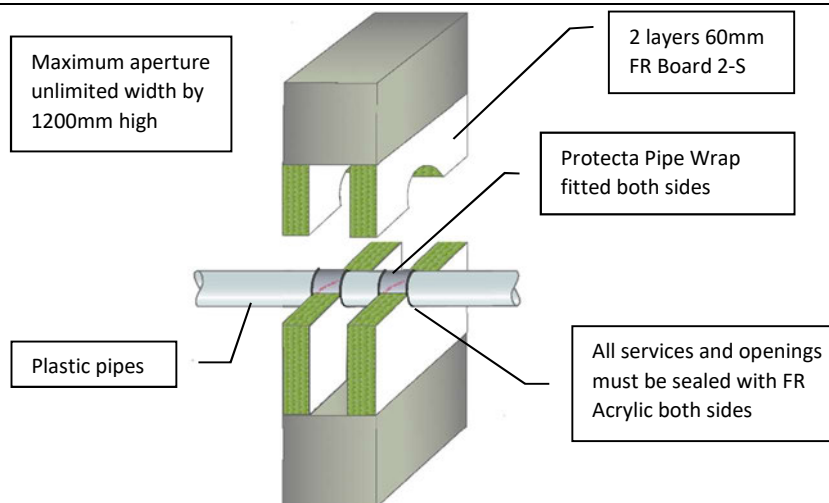
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Sheet size: **A4**  
Drawn date & no: 5/3/19

Scale: **NTS**  
Drawn by: K.B

### Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The boards should be flush with the surface of the construction on both sides to maximize the fire resistance. If this is not possible, there should be an air gap of at least 30mm between the boards.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



Services	Pipe Wall Thickness	FR Pipe Wrap	Classification
≤ Ø 40mm PVC-U & PVC-C	1.9 – 3.0mm	50 x 1.8mm (1 layer)	EI 240 U/C (E 240 U/C)
≤ Ø 40mm PE, ABS & SAN+PVC	2.4 – 4.6mm	50 x 1.8mm (1 layer)	EI 240 U/C (E 240 U/C)
≤ Ø 40mm PP	1.8 – 5.5mm	50 x 1.8mm (1 layer)	EI 240 U/C (E 240 U/C)
≤ Ø 110mm PVC-U & PVC-C	2.7 – 6.6mm	50 x 3.6mm (2 layers)	EI 240 U/C (E 240 U/C)
≤ Ø 110mm PE, ABS & SAN+PVC	3.4 – 10.0mm	50 x 3.6mm (2 layers)	EI 240 U/C (E 240 U/C)
≤ Ø 110mm PP	2.7 – 10.0mm	50 x 3.6mm (2 layers)	EI 240 C/C (E 240 C/C)
≤ Ø 125mm PVC-U & PVC-C	4.7 – 7.4mm	50 x 7.2mm (4 layers)	EI 240 U/C (E 240 U/C)
≤ Ø 125mm PE, ABS & SAN+PVC	3.9 – 7.4mm	50 x 7.2mm (4 layers)	EI 240 U/C (E 240 U/C)
≤ Ø 125mm PP	3.1 – 11.4mm	50 x 7.2mm (4 layers)	EI 240 C/C (E 240 C/C)
≤ Ø 160mm PVC-U & PVC-C	4.0 – 9.5mm	50 x 10.8mm (6 layers)	EI 240 U/C (E 240 U/C)
≤ Ø 160mm PE, ABS & SAN+PVC	4.9 – 9.5mm	50 x 10.8mm (6 layers)	EI 240 U/C (E 240 U/C)
≤ Ø 160mm PP	4.9 – 14.6mm	50 x 10.8mm (6 layers)	EI 240 C/C (E 240 C/C)
≤ Ø 200mm PVC-U & PVC-C	5.0 – 10.2mm	75 x 18.0mm (10 layers)	EI 120 C/C (E 120 C/C)
≤ Ø 250mm PVC-U & PVC-C	6.0 – 11.0mm	75 x 18.0mm (10 layers)	EI 120 C/C (E 120 C/C)
≤ Ø 315mm PVC-U & PVC-C	7.7 – 12.1mm	75 x 18.0mm (10 layers)	EI 120 C/C (E 120 C/C)
≤ Ø 400mm PVC-U & PVC-C	9.8 – 15.3mm	75 x 28.8mm (16 layers)	EI 120 C/C (E 120 C/C)

**Minimum separations and limitations** An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services should not exceed 60% of the penetration area.



ETA 13/0673 & 18/0855

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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:

Job Title:

**Products** Protecta FR Board  
Protecta FR Acrylic  
Protecta FR Pipe Wrap 25m


**Application** Fire stopping of plastic pipes in rigid walls

**Construction** Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m<sup>3</sup>

**Fire & Sound classification**

For fire classifications please see the table on the left.

Sound reduction (seal only) 52 dB

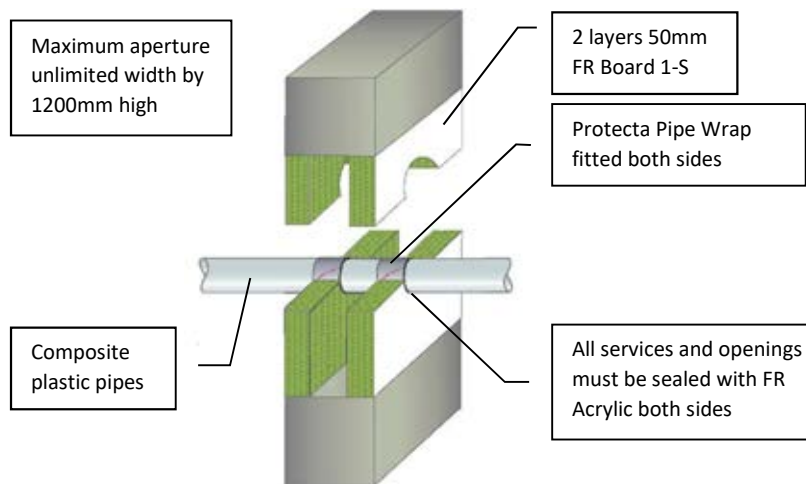


**Protecta®**  
Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

Sheet size: <b>A4</b>	Drawn date & no: 6/3/19
Scale: <b>NTS</b>	Drawn by: K.B

### Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The boards should be flush with the surface of the construction on both sides to maximize the fire resistance.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



Services	FR Pipe Wrap	Classification
Ø 32mm Aquatherm Green SDR9 pipes	50 x 1.8mm (1 layer)	EI 90 C/C (E 120 C/C)
≤ Ø 110mm Aquatherm Green SDR9 pipes	50 x 3.6mm (2 layers)	EI 90 C/C (E 120 C/C)
≤ Ø 50mm BluePower pipes	50 x 3.6mm (2 layers)	EI 90 U/U (E 90 U/U)
≤ Ø 110mm BluePower pipes	50 x 3.6mm (2 layers)	EI 90 C/U (E 90 C/U)
≤ Ø 50mm Geberit Silent-PP pipes	50 x 3.6mm (2 layers)	EI 120 U/U (E 120 U/U)
≤ Ø 110mm Geberit Silent-PP pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
≤ Ø 50mm Polo-Kal NG pipes	50 x 3.6mm (2 layers)	EI 120 U/U (E 120 U/U)
≤ Ø 110mm Polo-Kal NG pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
Ø 125mm Polo-Kal NG pipes	50 x 7.2mm (4 layers)	EI 120 U/C (E 120 U/C)
Ø 160mm Polo-Kal NG pipes	50 x 10.8mm (6 layers)	EI 120 U/C (E 120 U/C)
≤ Ø 50mm Rehau Raupiano Plus pipes	50 x 3.6mm (2 layers)	EI 120 U/U (E 120 U/U)
≤ Ø 110mm Rehau Raupiano Plus pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
Ø 125mm Rehau Raupiano Plus pipes	50 x 7.2mm (4 layers)	EI 120 U/C (E 120 U/C)
Ø 160mm Rehau Raupiano Plus pipes	50 x 10.8mm (6 layers)	EI 120 U/C (E 120 U/C)
≤ Ø 50mm Wavin SiTech pipes	50 x 3.6mm (2 layers)	EI 90 U/U (E 120 U/U)
≤ Ø 110mm Wavin SiTech pipes	50 x 3.6mm (2 layers)	EI 60 U/C (E 120 U/C)

**Minimum separations and limitations** An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services should not exceed 60% of the penetration area.



ETA 13/0673 & 18/0855

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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:

Job Title:

**Products** Protecta FR Board  
Protecta FR Acrylic  
Protecta FR Pipe Wrap 25m

**Application** Fire stopping of composite plastic pipes in rigid walls

**Construction** Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m<sup>3</sup>

### Fire & Sound classification

For fire classifications please see the table on the left.

Sound reduction (seal only) 52 dB



**Protecta®**

Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB

Tel: +44 (0) 148 4421036

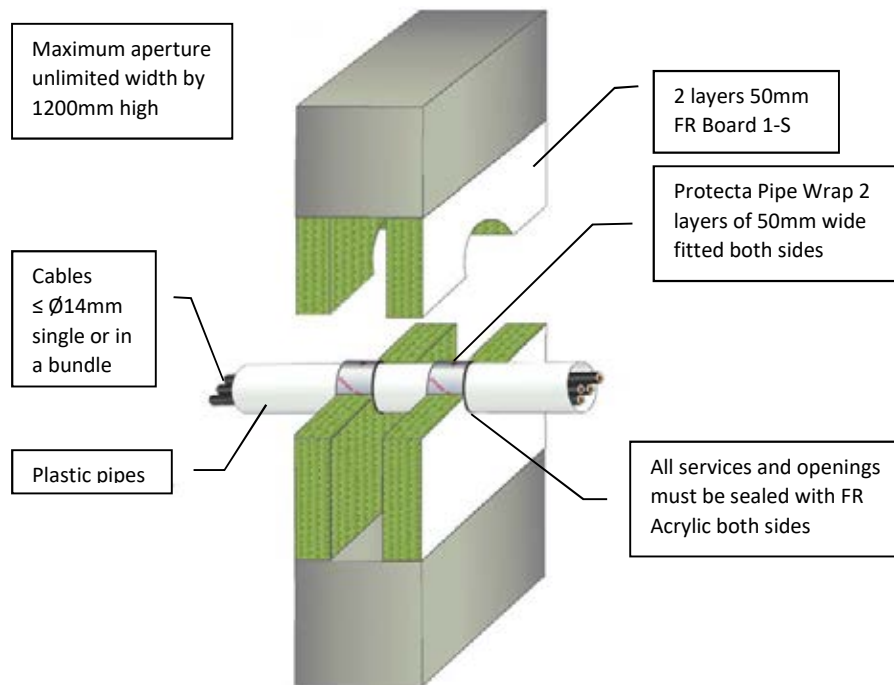
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

Sheet size: **A4**  
Drawn date & no: 5/3/19

Scale: **NTS**  
Drawn by: K.B

Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The boards should be flush with the surface of the construction on both sides to maximize the fire resistance.
3. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
4. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
5. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



ETA 13/0673 & 18/0855

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Signed and approved:

Client:

Job Title:

<b>Products</b>	Protecta FR Board Protecta FR Acrylic Protecta FR Pipe Wrap
<b>Application</b>	Fire stopping of conduits in rigid walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m <sup>3</sup>

**Fire & Sound classification**

Conduits of PVC-U & PVC-C pipes ≤ Ø110mm with wall thickness 2.7-6.6mm	EI 90 U/C & E 120 U/C
Conduits of PE, ABS & SAN+PVC pipes ≤ Ø110mm with wall thickness 4.2-10.0mm	EI 90 U/C & E 120 U/C
Conduits of PP pipes ≤ Ø110mm with wall thickness 2.7-15.1mm	EI 90 U/C & E 120 U/C
Sound reduction (seal only)	52 dB



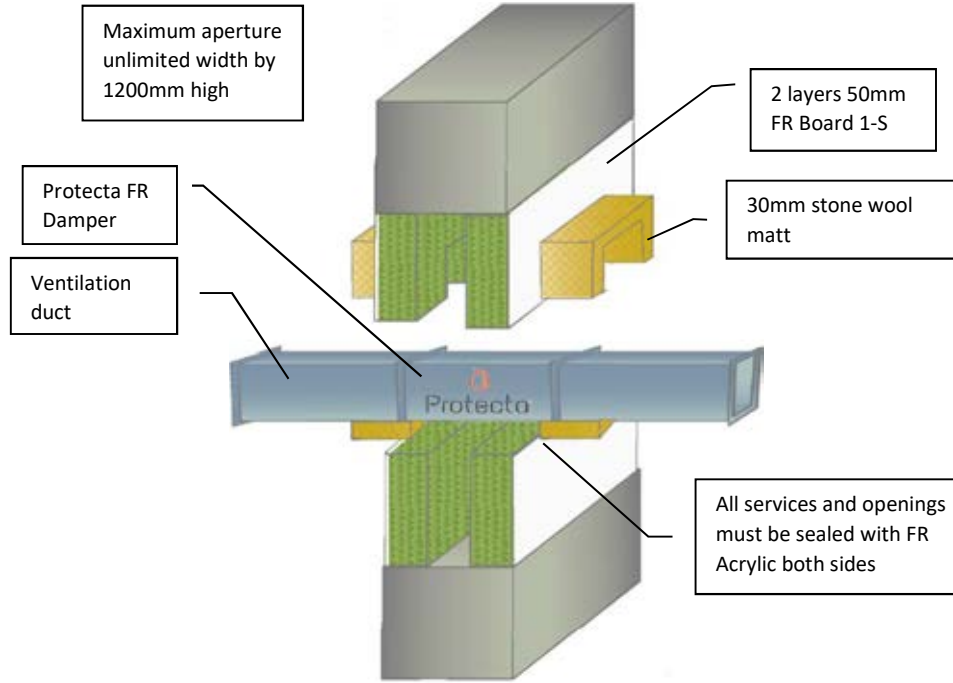
**Protecta®**

Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

Sheet size:	Drawn date & no:
<b>A4</b>	5/3/19
Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Protecta® FR Coating and Protecta® FR Acrylic are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. The boards should be flush with the surface of the construction on both sides to maximize the fire resistance.
4. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
5. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
6. Insulate the ventilation duct towards the fire seal on both sides with 30mm thick stone wool matting to the length given on this page. Insulate on one side only if the duct terminates in the wall.
7. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



This product is certified to applicable European (EN) standards and UL-EU Mark service requirements.

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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:

Job Title:

<b>Products</b>	Protecta FR Board Protecta FR Acrylic Protecta FR Damper
<b>Application</b>	Fire stopping of ventilation ducts in rigid walls
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$

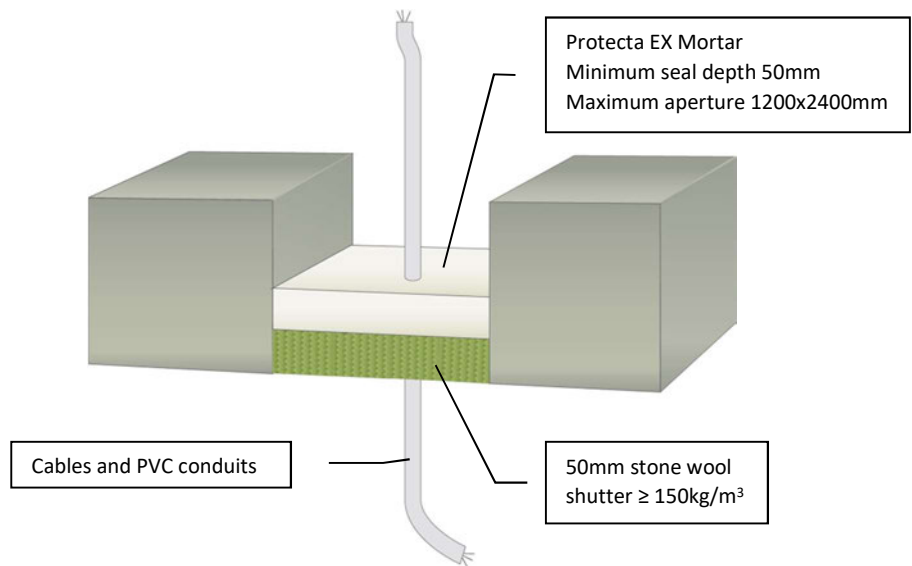
<b>Fire &amp; Sound classification</b>	
$\leq \text{Ø } 400\text{mm}$ damper/duct with $\geq 200\text{mm}$ stone wool matt on both sides	EI 120 & E 120
$\leq \text{Ø } 1250\text{mm}$ damper/duct with $\geq 500\text{mm}$ stone wool matt on both sides	EI 60 & E 90
$\leq 600\text{mm high x } 1000\text{mm wide}$ damper/duct with $\geq 500\text{mm}$ stone wool matt on both sides	EI 120 & E 120
$\leq 1200\text{mm high x } 1700\text{mm wide}$ damper/duct with $\geq 500\text{mm}$ stone wool matt on both sides	EI 90 & E 90
<b>Sound reduction (seal only)</b>	52 dB

Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

Sheet size: <b>A4</b>	Drawn date & no: 27/7/17
Scale: <b>NTS</b>	Drawn by: K.B

Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. The seal can be positioned to either side of the construction or anywhere in between.
3. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
4. Install a stone wool shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal – any small openings should be sealed with Protecta® FR Acrylic
5. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process
6. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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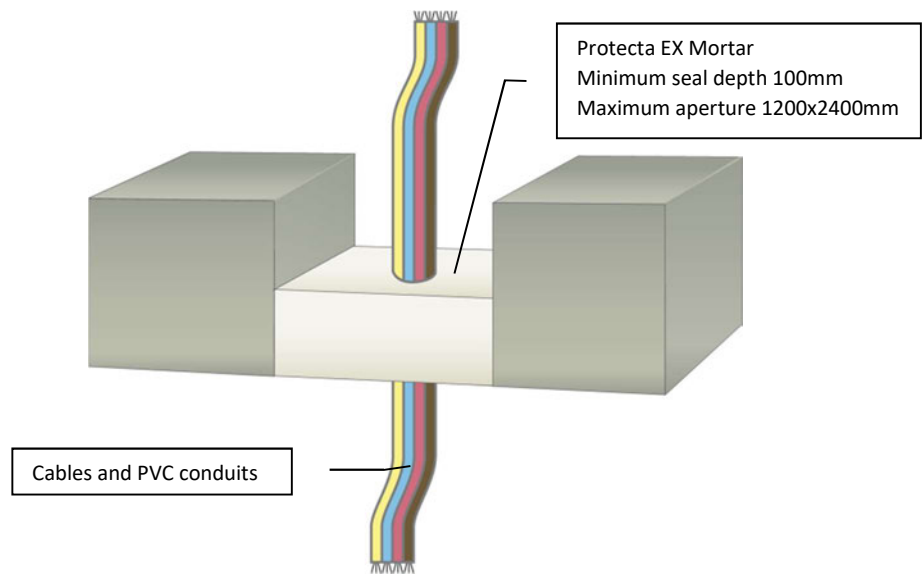
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta EX Mortar Stone wool shutter
<b>Application</b>	Fire stopping of cables and conduits in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup> .
<b>Fire &amp; Sound classification</b>	
Cables ≤ Ø21mm	EI 90 & E 180
Cables ≤ Ø21mm in tied bundles ≤ Ø100mm and PVC conduits (C/U) ≤ Ø16mm	EI 180 & E 180
Non-sheathed cables/wires ≤ Ø17mm	EI 60 & E 180
Sound reduction (seal only)	48dB
	
Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
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<b>A4</b>	6/3/19
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. The seal can be positioned to either side of the construction or anywhere in between.
3. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
4. Install a shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal.
5. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process
6. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



**Loadbearing Properties**  
 Soft body impact, serviceability 500Nm. Soft body impact, safety in use 700Nm. Hard body impact serviceability 6Nm. Hard body impact, safety in use 10Nm. Concentrated load to 15kN on size up to 1500mm x1000mm (no failure), 4.85kN on sizes up to 1200mm x 2400mm.

**Minimum separations and limitations**  
 An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:

Job Title:

**Products Application** Protecta EX Mortar  
 Fire stopping of cables and conduits in rigid floors  
**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>

**Fire & Sound classification**

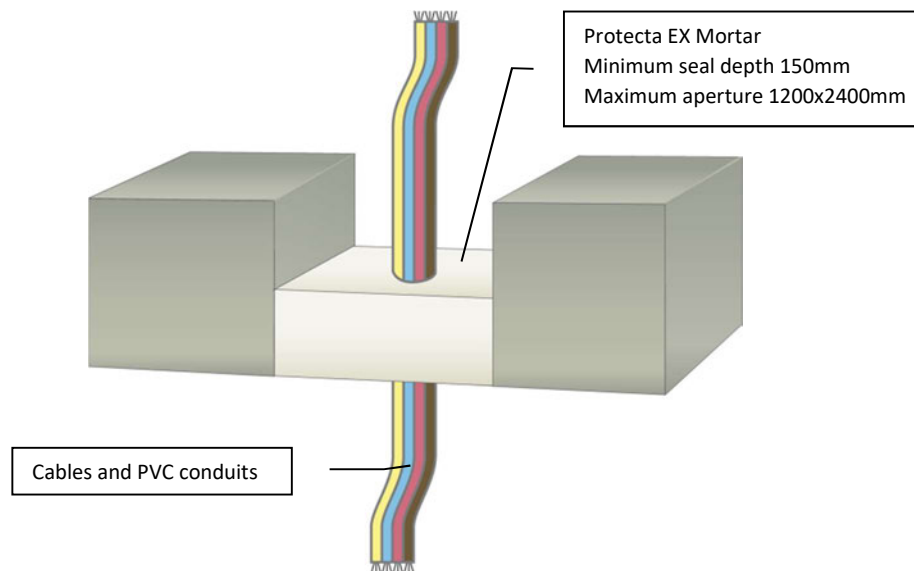
Cables ≤ Ø21mm	EI 90 & E 180
Cables ≤ Ø21mm in tied bundles ≤ Ø100mm and PVC conduits (C/U) ≤ Ø16mm	EI 180 & E 180
Cables ≤ Ø50mm, single or bundled	EI 60 & E 180
Cables ≤ Ø80mm, single or bundled	EI 60 & E 120
Non-sheathed cables/wires ≤ Ø17mm	EI 60 & E 180
Sound reduction (seal only)	48dB

Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB  
 Tel: +44 (0) 148 4421036  
 Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

Sheet size: <b>A4</b>	Drawn date & no: 6/3/19
Scale: <b>NTS</b>	Drawn by: K.B

**Installation Instructions**

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. The seal can be positioned to either side of the construction or anywhere in between.
3. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
4. Install a shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal.
5. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process
6. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



**Loadbearing Properties**  
 Soft body impact, serviceability 500Nm. Soft body impact, safety in use 700Nm. Hard body impact serviceability 6Nm. Hard body impact, safety in use 10Nm. Concentrated load to 15kN on size up to 1500mm x1000mm (no failure), 4.85kN on sizes up to 1200mm x 2400mm.

**Minimum separations and limitations**  
 An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:

Job Title:

**Products Application** Protecta EX Mortar  
 Fire stopping of cables and conduits in rigid floors  
**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>

**Fire & Sound classification**

Cables ≤ Ø21mm, single	EI 120 & E 240
Cables ≤ Ø21mm in tied bundles ≤ Ø100mm and PVC conduits (C/U) ≤ Ø16mm	EI 180 & E 180
Cables ≤ Ø50mm, single or bundled	EI 90 & E 240
Cables ≤ Ø80mm, single or bundled	EI 60 & E 120
Unsheathed wires/cables ≤ Ø24 mm	EI 120 & E 120
Sound reduction (seal only)	48dB

Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB  
 Tel: +44 (0) 148 4421036  
 Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

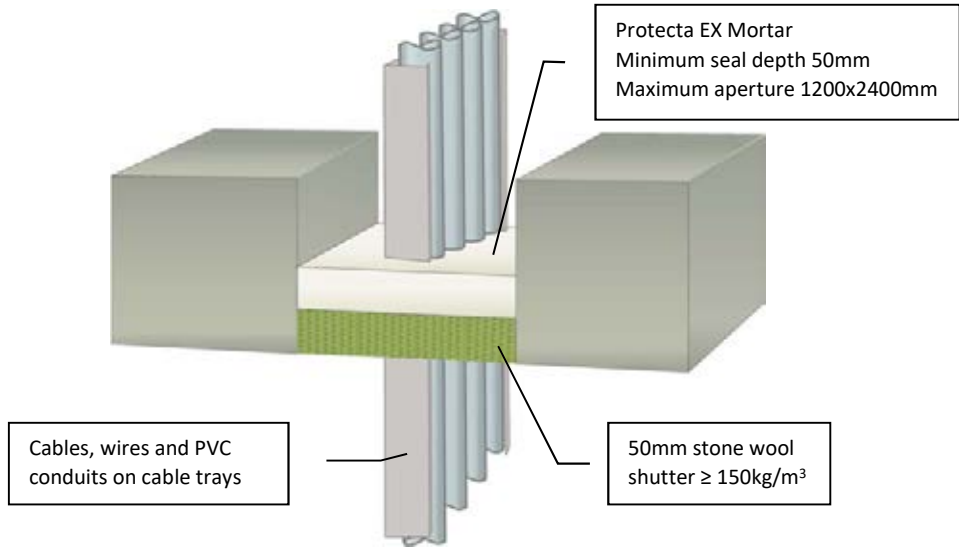
Sheet size:	Drawn date & no:
<b>A4</b>	6/3/19

Scale:	Drawn by:
<b>NTS</b>	K.B



Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. Bare metal passing through the seal must be protected against corrosion using a suitable primer/protection system.
3. The seal can be positioned to either side of the construction or anywhere in between.
4. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
5. Install a stone wool shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal – any small openings should be sealed with Protecta® FR Acrylic
6. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process
7. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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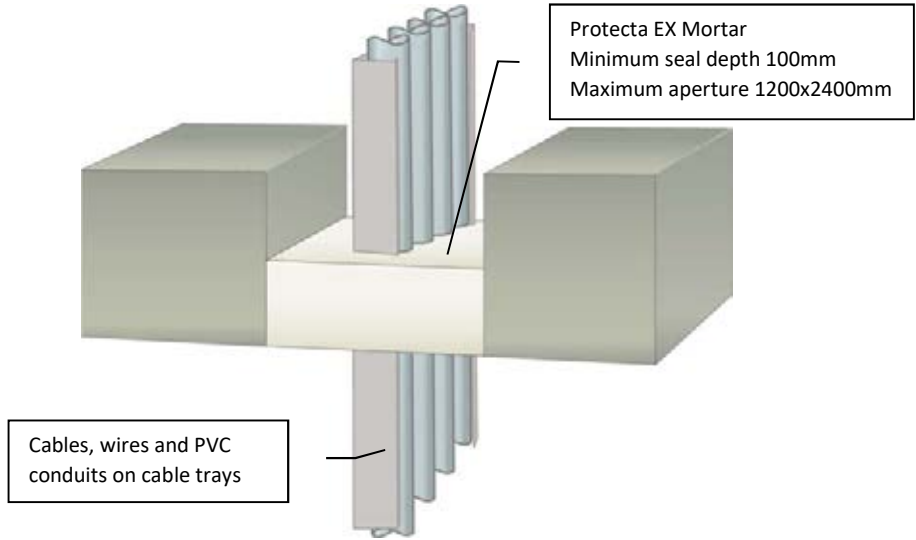
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta EX Mortar Stone wool shutter
<b>Application</b>	Fire stopping of cables, wires and conduits on cable trays in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup> .
<b>Fire &amp; Sound classification</b>	
Cables ≤ Ø21mm, single or bundled on trays EI 60 & E 180	
Cables ≤ Ø21mm, single or bundled, non-sheathed cables/wires ≤ Ø17mm and PVC conduits (C/U) ≤ Ø16mm on trays or ladders EI 60 & E 90	
Sound reduction (seal only) 48dB	
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
<b>A4</b>	6/3/19
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. Bare metal passing through the seal must be protected against corrosion using a suitable primer/protection system.
3. The seal can be positioned to either side of the construction or anywhere in between.
4. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
5. Install a shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal.
6. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process
7. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



<p><b>Loadbearing Properties</b></p> <p>Soft body impact, serviceability 500Nm. Soft body impact, safety in use 700Nm. Hard body impact serviceability 6Nm. Hard body impact, safety in use 10Nm. Concentrated load to 15kN on size up to 1500mm x1000mm (no failure), 4.85kN on sizes up to 1200mm x 2400mm.</p>
<p><b>Minimum separations and limitations</b></p> <p>An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.</p>



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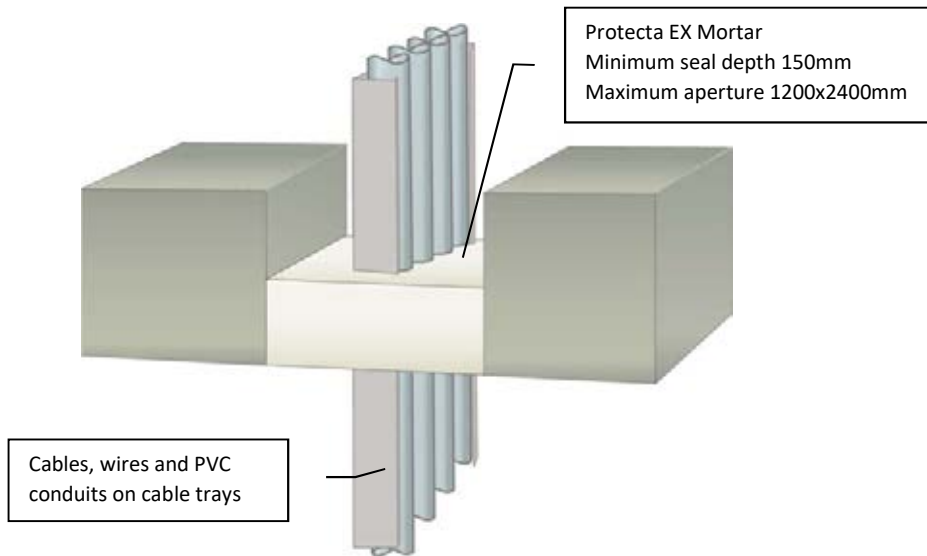
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta EX Mortar
<b>Application</b>	Fire stopping of cables, wires and conduits on cable trays in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>
<b>Fire &amp; Sound classification</b>	
Cables ≤ Ø50mm, single or bundled, non-sheathed cables/wires ≤ Ø17mm and PVC conduits ≤ Ø16mm (C/U) on trays EI 60 & E 180	
Cables ≤ Ø80mm, single or bundled, non-sheathed cables/wires ≤ Ø17mm and PVC conduits ≤ Ø16mm (C/U) on trays or ladders EI 60 & E 120	
Sound reduction (seal only) 48dB	
Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
<b>A4</b>	6/3/19
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. Bare metal passing through the seal must be protected against corrosion using a suitable primer/protection system.
3. The seal can be positioned to either side of the construction or anywhere in between.
4. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
5. Install a shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal.
6. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process
7. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



Protecta EX Mortar  
Minimum seal depth 150mm  
Maximum aperture 1200x2400mm

Cables, wires and PVC conduits on cable trays

**Loadbearing Properties**  
Soft body impact, serviceability 500Nm. Soft body impact, safety in use 700Nm. Hard body impact serviceability 6Nm. Hard body impact, safety in use 10Nm. Concentrated load to 15kN on size up to 1500mm x1000mm (no failure), 4.85kN on sizes up to 1200mm x 2400mm.

**Minimum separations and limitations**  
An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:

Job Title:

**Products Application** Protecta EX Mortar  
Fire stopping of cables, wires and conduits on cable trays in rigid floors  
**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>

**Fire & Sound classification**  
Cables ≤ Ø21mm, single or bundled on trays or ladders ≤ 500mm wide EI 120 & E 240  
Cables ≤ Ø80mm, single or bundled on trays or ladders EI 60 & E 120  
PVC conduits ≤ Ø16mm (C/U) on trays or ladders ≤ 500mm wide EI 120 & E 180  
Unsheathed wires/cables ≤ Ø24 mm on trays or ladders ≤ 500mm wide EI 120 & E 120  
Sound reduction (seal only) 48dB

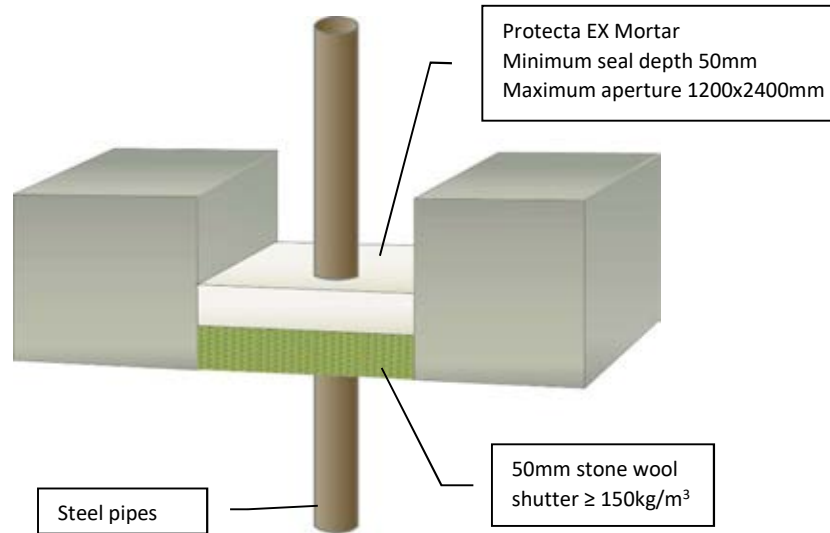
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Tel: +44 (0) 148 4421036  
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

Sheet size: **A4** Drawn date & no: 6/3/19

Scale: **NTS** Drawn by: **K.B**

Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. Bare metal pipes passing through the seal must be protected against corrosion using a suitable primer/protection system.
3. The seal can be positioned to either side of the construction or anywhere in between.
4. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
5. Install a stone wool shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal – any small openings should be sealed with Protecta® FR Acrylic.
6. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process
7. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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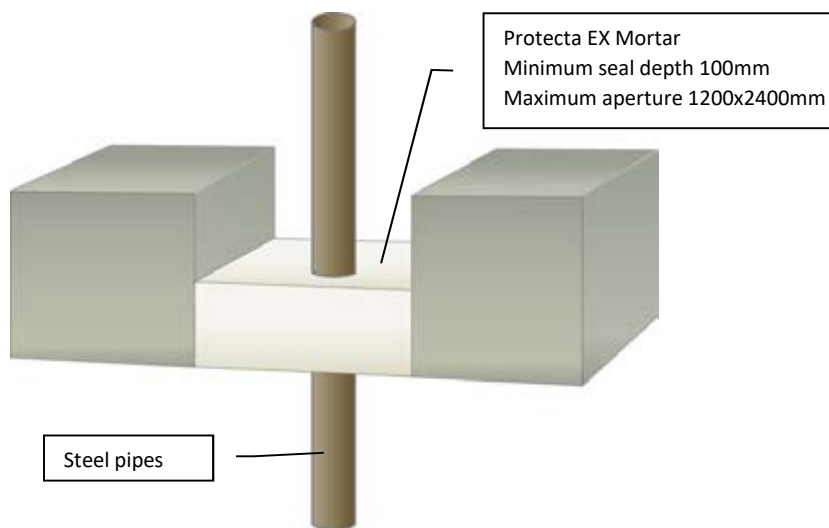
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta EX Mortar Stone wool shutter
<b>Application</b>	Fire stopping of un-insulated steel pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup> .
<b>Fire &amp; Sound classification</b>	
Steel pipes ≤ Ø16mm	EI 180 C/U & E 180 C/U
Sound reduction (seal only)	48dB
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
<b>A4</b>	23/5/18
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. Bare metal pipes passing through the seal must be protected against corrosion using a suitable primer/protection system.
3. The seal can be positioned to either side of the construction or anywhere in between.
4. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
5. Install a shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal.
6. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process
7. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



**Loadbearing Properties**

Soft body impact, serviceability 500Nm. Soft body impact, safety in use 700Nm. Hard body impact serviceability 6Nm. Hard body impact, safety in use 10Nm. Concentrated load to 15kN on size up to 1500mm x1000mm (no failure), 4.85kN on sizes up to 1200mm x 2400mm.

**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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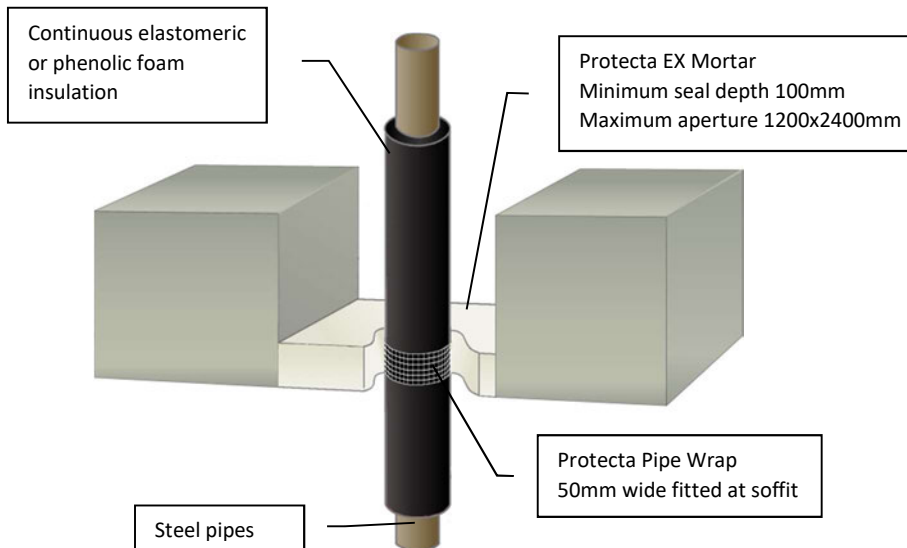
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta EX Mortar
<b>Application</b>	Fire stopping of un-insulated steel pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m³.
<b>Fire &amp; Sound classification</b>	
Steel pipes ≤ Ø16mm	EI 240 C/U & E 240 C/U
Sound reduction (seal only)	48dB
Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
<b>A4</b>	23/5/18
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. The seal can be positioned to either side of the construction or anywhere in between.
3. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
4. Install a shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal.
5. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process
6. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



**Loadbearing Properties**  
 Soft body impact, serviceability 500Nm. Soft body impact, safety in use 700Nm. Hard body impact serviceability 6Nm. Hard body impact, safety in use 10Nm. Concentrated load to 15kN on size up to 1500mm x1000mm (no failure), 4.85kN on sizes up to 1200mm x 2400mm.

**Minimum separations and limitations**  
 An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:

Job Title:

**Products** Protecta EX Mortar  
 Protecta FR Pipe Wrap 25m  
**Application** Fire stopping of insulated steel pipes in rigid floors  
**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>.

**Fire & Sound classification**  
Steel pipes ≤ Ø40mm with 13mm continuous foam insulation and 1 layer of pipe wrap  
 EI 180 C/U & E 180 C/U  
Steel pipes ≤ Ø40mm with 14-25mm continuous foam insulation and 2 layers of pipe wrap  
 EI 180 C/U & E 180 C/U  
Steel pipes ≤ Ø165mm with 14 - 19mm continuous foam insulation and 1 layer of pipe wrap  
 EI 120 C/U & E 180 C/U  
Steel pipes ≤ Ø324mm with 25mm continuous foam insulation and 2 layers of pipe wrap  
 EI 120 C/U & E 180 C/U  
Steel pipes ≤ Ø324mm with 26 - 50mm continuous foam insulation and 3 layers of pipe wrap  
 EI 120 C/U & E 120 C/U  
Sound reduction (seal only) 48dB

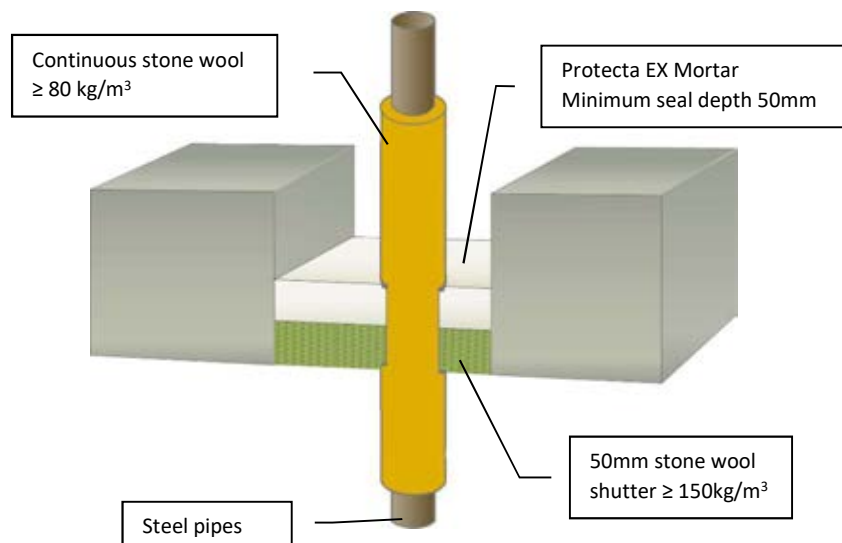
Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB  
 Tel: +44 (0) 148 4421036  
 Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

Sheet size: **A4** Drawn date & no: 4/3/19

Scale: **NTS** Drawn by: K.B

### Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. The seal can be positioned to either side of the construction or anywhere in between.
3. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
4. Install a stone wool shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal – any small openings should be sealed with Protecta® FR Acrylic
5. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process
6. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



#### Minimum separations and limitations


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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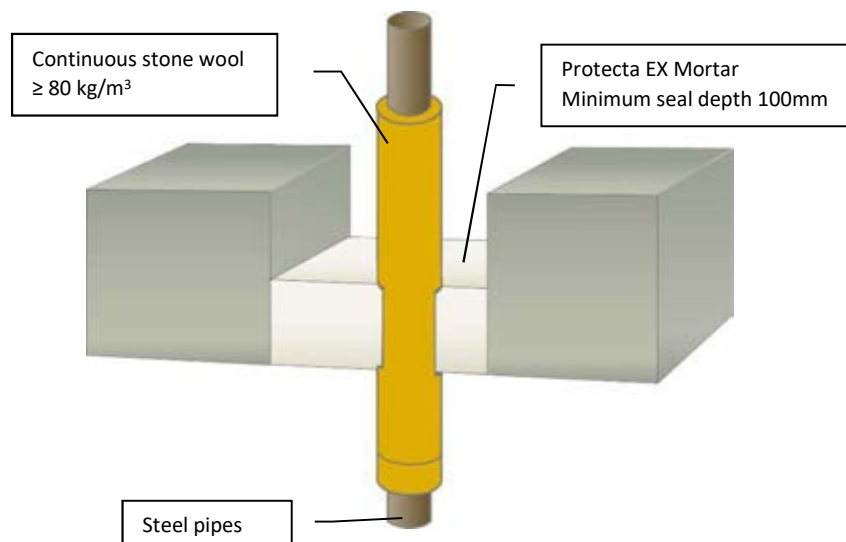
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta EX Mortar Stone wool shutter
<b>Application</b>	Fire stopping of insulated steel pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>
<b>Fire &amp; Sound classification</b>	
Steel pipes ≤ Ø324mm with 20-80mm thick stone wool insulation in maximum apertures 1200 x 2400mm EI 180 C/U & E 180 C/U	
Steel pipes ≤ Ø324mm with 20-80mm thick stone wool insulation in maximum apertures 550 x 1100mm EI 240 C/U & E 240 C/U	
Sound reduction (seal only)	48dB
	
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Sheet size: <b>A4</b>	Drawn date & no: 16/1/17
Scale: <b>NTS</b>	Drawn by: K.B

**Installation Instructions**

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. The seal can be positioned to either side of the construction or anywhere in between.
3. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
4. Install a shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal.
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**Loadbearing Properties**

Soft body impact, serviceability 500Nm. Soft body impact, safety in use 700Nm. Hard body impact serviceability 6Nm. Hard body impact, safety in use 10Nm. Concentrated load to 15kN on size up to 1500mm x1000mm (no failure), 4.85kN on sizes up to 1200mm x 2400mm.

**Minimum separations and limitations**


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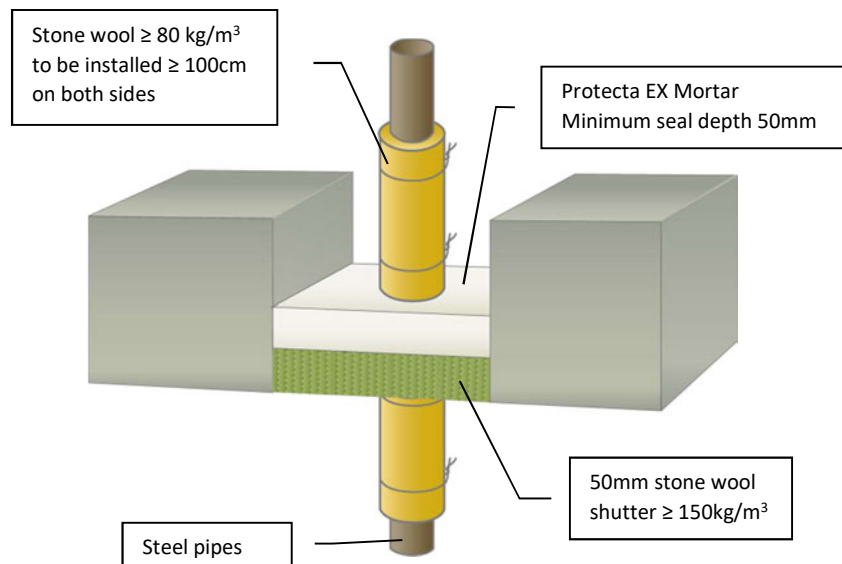
Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta EX Mortar
<b>Application</b>	Fire stopping of insulated steel pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>
<b>Fire &amp; Sound classification</b>	
Steel pipes ≤ Ø324mm with 20-80mm thick stone wool insulation in maximum apertures 1200 x 2400mm	
EI 240 C/U & E 240 C/U	
Sound reduction (seal only)	48dB
	
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<b>A4</b>	23/5/18
Scale:	Drawn by:
<b>NTS</b>	K.B



### Installation Instructions

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2. Bare metal pipes passing through the seal must be protected against corrosion using a suitable primer/protection system.
3. The seal can be positioned to either side of the construction or anywhere in between.
4. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
5. Install a stone wool shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal – any small openings should be sealed with Protecta® FR Acrylic
6. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process
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#### Minimum separations and limitations

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ETA 13/0672 & 18/0855

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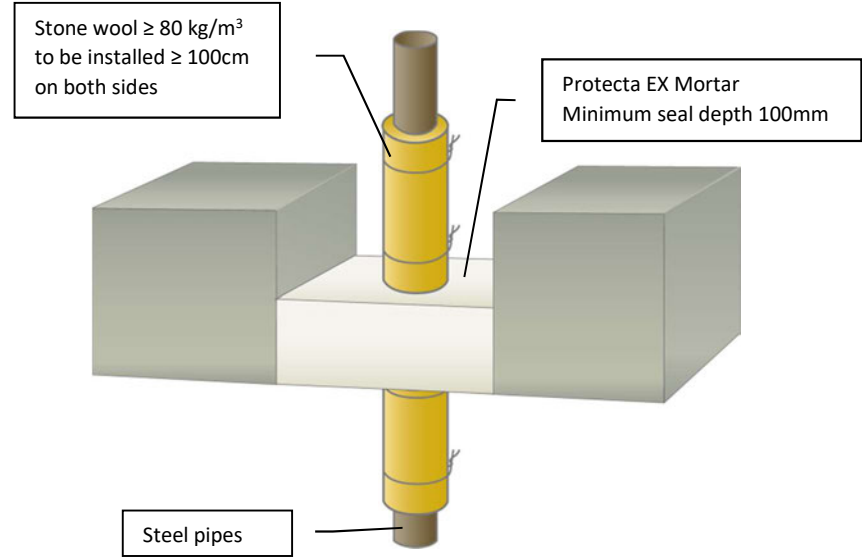
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta EX Mortar Stone wool shutter
<b>Application</b>	Fire stopping of insulated steel pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup> .
<b>Fire &amp; Sound classification</b>	
<u>Steel pipes ≤ Ø40mm</u> with ≥ 20mm stone wool insulation in maximum apertures 1200 x 2400mm EI 180 C/U & E 180 C/U	
<u>Steel pipes ≤ Ø40mm</u> with ≥ 20mm stone wool insulation in maximum apertures 280 x 280mm EI 240 C/U & E 240 C/U	
<u>Steel pipes ≤ Ø219mm</u> with ≥ 30mm stone wool insulation in maximum apertures 1200 x 2400mm EI 90 C/U & E 180 C/U	
<u>Steel pipes ≤ Ø219mm</u> with ≥ 30mm stone wool insulation in maximum apertures 280 x 280mm EI 90 C/U & E 240 C/U	
Sound reduction (seal only)	48dB
	
Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
<b>A4</b>	19/8/15
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. Bare metal pipes passing through the seal must be protected against corrosion using a suitable primer/protection system.
3. The seal can be positioned to either side of the construction or anywhere in between.
4. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
5. Install a shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal.
6. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process
7. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



<p><b>Loadbearing Properties</b></p> <p>Soft body impact, serviceability 500Nm. Soft body impact, safety in use 700Nm. Hard body impact serviceability 6Nm. Hard body impact, safety in use 10Nm. Concentrated load to 15kN on size up to 1500mm x1000mm (no failure), 4.85kN on sizes up to 1200mm x 2400mm.</p>
<p><b>Minimum separations and limitations</b></p> <p>An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.</p>



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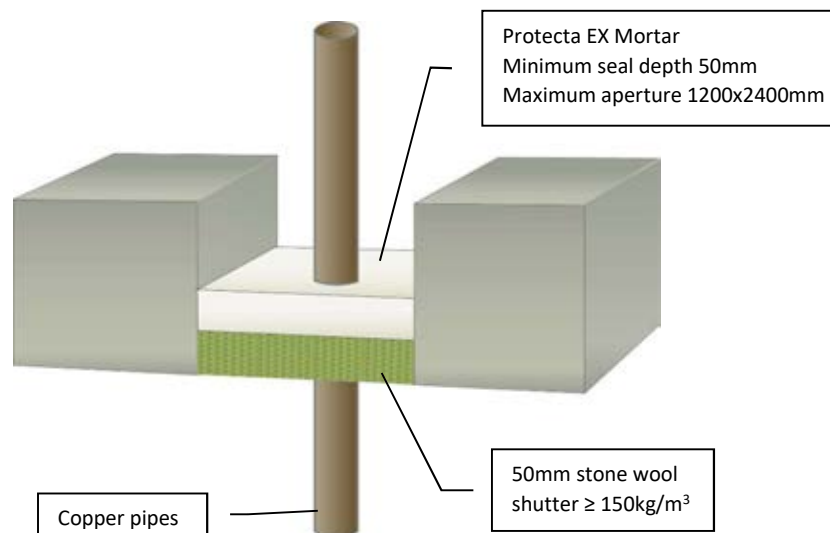
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Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta EX Mortar
<b>Application</b>	Fire stopping of insulated steel pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m³.
<b>Fire &amp; Sound classification</b>	
Steel pipes ≤ Ø40mm with ≥ 20mm stone wool insulation in maximum apertures 1200 x 2400mm EI 240 C/U & E 240 C/U	
Steel pipes ≤ Ø219mm with ≥ 30mm stone wool insulation in maximum apertures 1200 x 2400mm EI 120 C/U & E 240 C/U	
Sound reduction (seal only)	48dB
Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
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<b>A4</b>	23/5/18
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<b>NTS</b>	K.B

Installation Instructions

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5. Install a stone wool shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal – any small openings should be sealed with Protecta® FR Acrylic.
6. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process
7. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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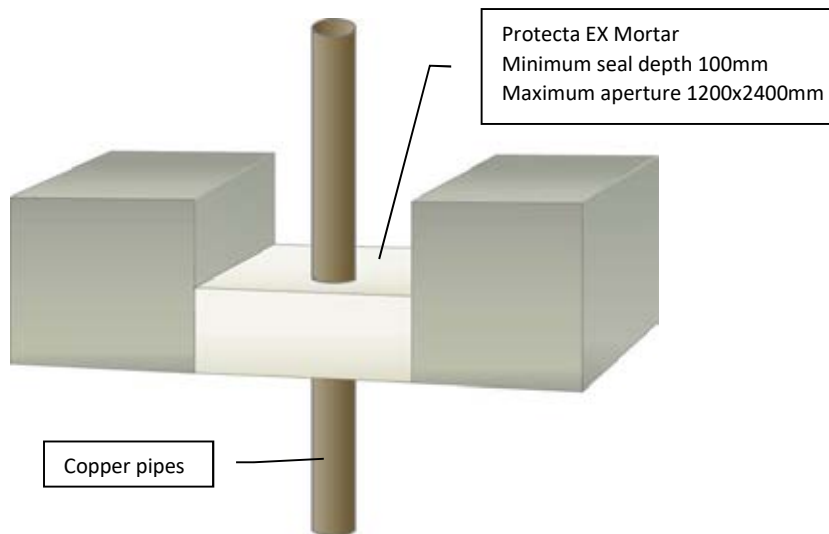
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta EX Mortar Stone wool shutter
<b>Application</b>	Fire stopping of un-insulated copper pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup> .
<b>Fire &amp; Sound classification</b>	
Copper pipes Ø6mm	EI 120 C/C & E 180 C/C
Copper pipes ≤ Ø15mm	EI 30 C/C & E 180 C/C
Sound reduction (seal only)	48dB
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
<b>A4</b>	23/5/18
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. Bare metal pipes passing through the seal must be protected against corrosion using a suitable primer/protection system.
3. The seal can be positioned to either side of the construction or anywhere in between.
4. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
5. Install a shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal.
6. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process
7. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



**Loadbearing Properties**

Soft body impact, serviceability 500Nm. Soft body impact, safety in use 700Nm. Hard body impact serviceability 6Nm. Hard body impact, safety in use 10Nm. Concentrated load to 15kN on size up to 1500mm x1000mm (no failure), 4.85kN on sizes up to 1200mm x 2400mm.

**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.




ETA 13/0672 & 18/0855

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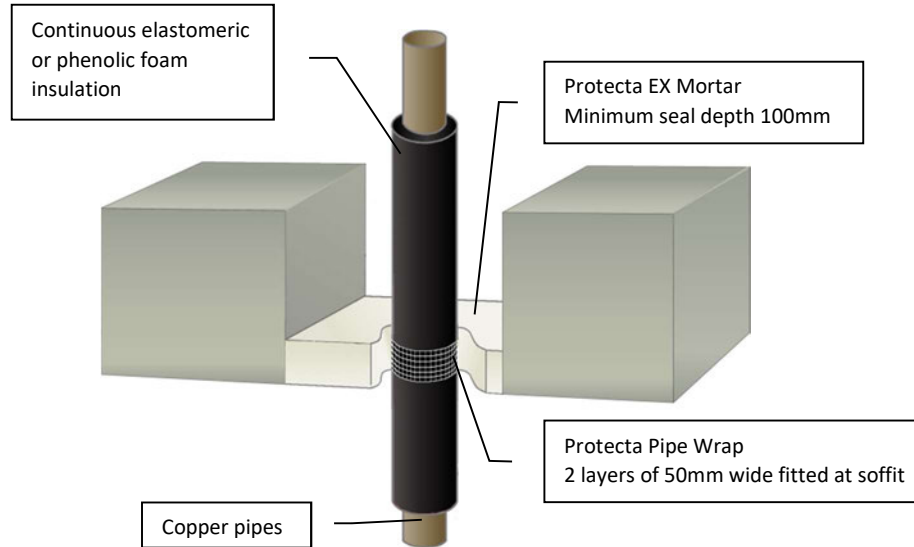
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta EX Mortar
<b>Application</b>	Fire stopping of un-insulated copper pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m³.
<b>Fire &amp; Sound classification</b>	
Copper pipes Ø6mm	EI 120 C/C & E 180 C/C
Copper pipes ≤ Ø15mm	EI 30 C/C & E 180 C/C
Copper pipes ≤ Ø54mm	EI 20 C/C & E 120 C/C
Sound reduction (seal only)	48dB
	
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Sheet size:	Drawn date & no:
<b>A4</b>	23/5/18
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. The seal can be positioned to either side of the construction or anywhere in between.
3. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
4. Install a shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal.
5. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process
6. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.




<p><b>Loadbearing Properties</b></p> <p>Soft body impact, serviceability 500Nm. Soft body impact, safety in use 700Nm. Hard body impact serviceability 6Nm. Hard body impact, safety in use 10Nm. Concentrated load to 15kN on size up to 1500mm x1000mm (no failure), 4.85kN on sizes up to 1200mm x 2400mm.</p>
<p><b>Minimum separations and limitations</b></p> <p>An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.</p>



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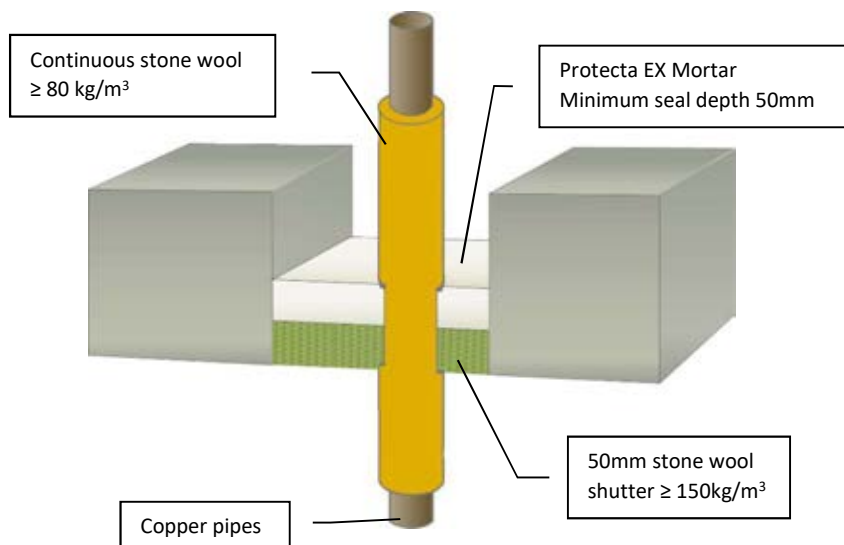
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta EX Mortar Protecta FR Pipe Wrap 25m
<b>Application</b>	Fire stopping of insulated copper pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>
<b>Fire &amp; Sound classification</b>	
Copper pipes ≤ Ø12mm with 9mm foam insulation in maximum apertures 1200 x 2400mm EI 240 C/C & E 240 C/C	
Copper pipes ≤ Ø54mm with 13 - 25mm foam insulation in maximum apertures 1200 x 2400mm EI 60 C/C & E 240 C/C	
Sound reduction (seal only) 48dB	
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size: <b>A4</b>	Drawn date & no: 4/3/19
Scale: <b>NTS</b>	Drawn by: K.B

Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. The seal can be positioned to either side of the construction or anywhere in between.
3. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
4. Install a stone wool shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal – any small openings should be sealed with Protecta® FR Acrylic
5. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process
6. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



**Minimum separations and limitations**


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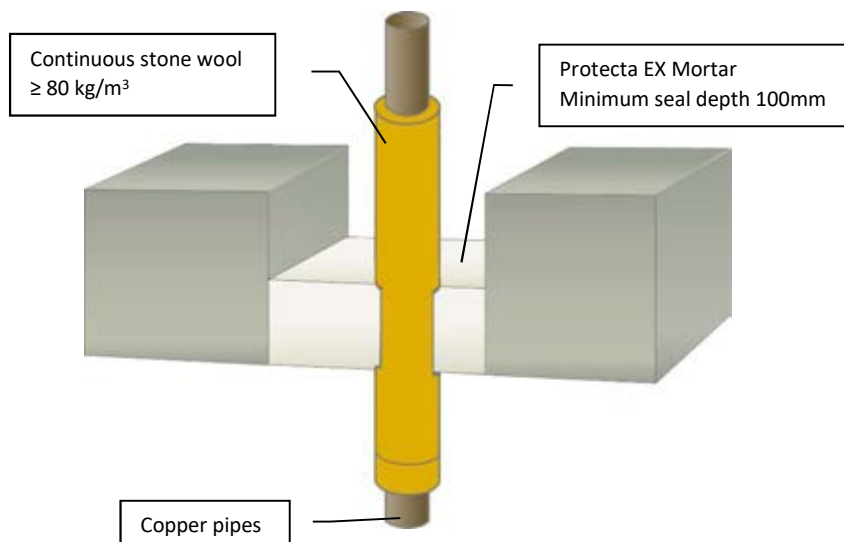
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta EX Mortar Stone wool shutter
<b>Application</b>	Fire stopping of insulated copper pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>
<b>Fire &amp; Sound classification</b>	
Copper pipes ≤ Ø54mm with 20-80mm thick stone wool insulation in maximum apertures 1200 x 2400mm	
EI 120 C/C & E 180 C/C	
Sound reduction (seal only)	48dB
	
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Sheet size:	Drawn date & no:
<b>A4</b>	23/5/18
Scale:	Drawn by:
<b>NTS</b>	K.B

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**Loadbearing Properties**  
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Signed and approved:

Client:

Job Title:

<b>Products</b>	Protecta EX Mortar
<b>Application</b>	Fire stopping of insulated copper pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>

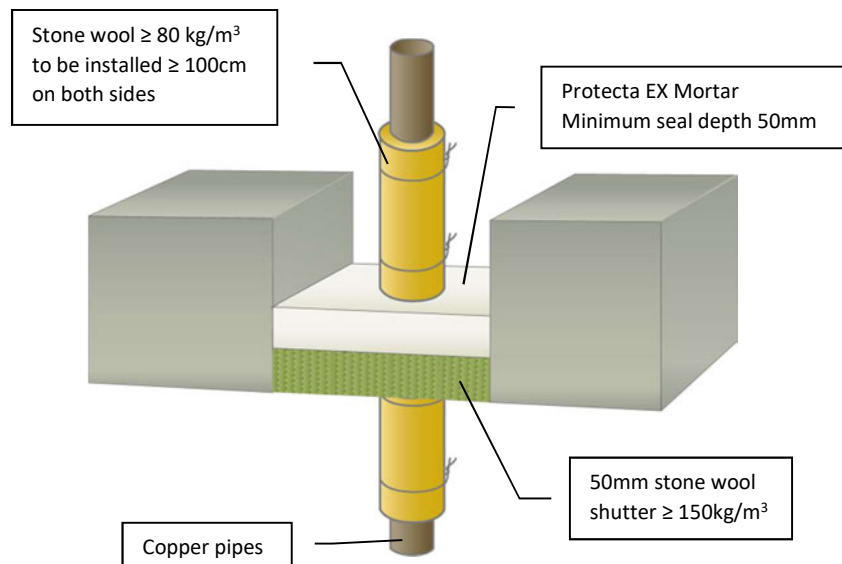
<b>Fire &amp; Sound classification</b>	
Copper pipes ≤ Ø54mm with 20-80mm thick stone wool insulation in maximum apertures 1200 x 2400mm	
EI 120 C/C & E 180 C/C	
Sound reduction (seal only)	48dB

Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB  
 Tel: +44 (0) 148 4421036  
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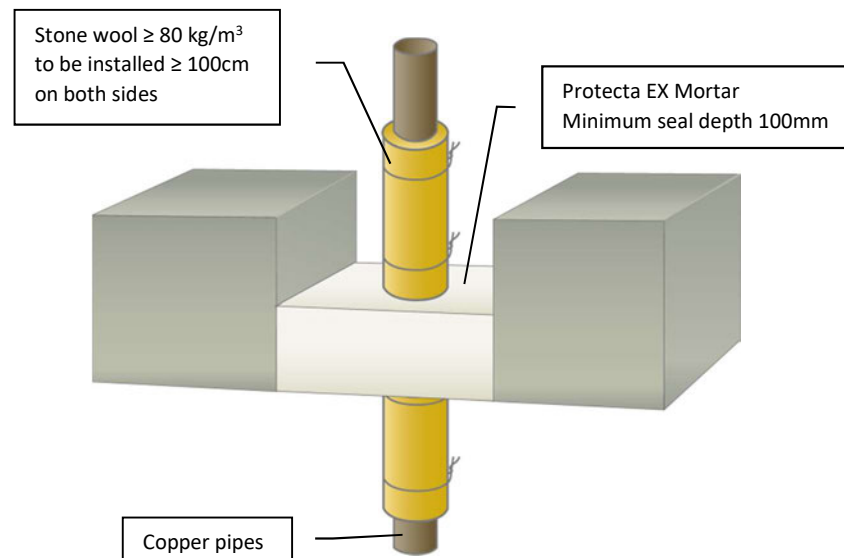
Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta EX Mortar Stone wool shutter
<b>Application</b>	Fire stopping of insulated copper pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup> .
<b>Fire &amp; Sound classification</b>	
Copper pipes ≤ Ø12mm with ≥ 20mm stone wool insulation in maximum apertures 70 x 70mm EI 240 C/C & E 240 C/C	
Copper pipes ≤ Ø54mm with ≥ 20mm stone wool insulation in maximum apertures 1200 x 2400mm EI 180 C/C & E 180 C/C	
Copper pipes ≤ Ø54mm with ≥ 20mm stone wool insulation in maximum apertures 115 x 115mm EI 180 C/C & E 240 C/C	
Sound reduction (seal only)	48dB
	
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### Installation Instructions

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5. Install a shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal.
6. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process
7. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



#### Loadbearing Properties

Soft body impact, serviceability 500Nm. Soft body impact, safety in use 700Nm. Hard body impact serviceability 6Nm. Hard body impact, safety in use 10Nm. Concentrated load to 15kN on size up to 1500mm x1000mm (no failure), 4.85kN on sizes up to 1200mm x 2400mm.

#### Minimum separations and limitations

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.




ETA 13/0672 & 18/0855

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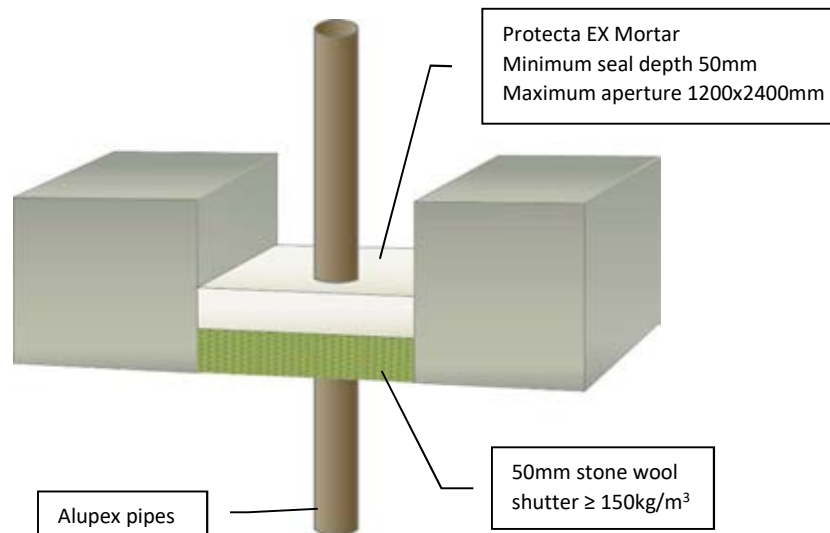
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta EX Mortar
<b>Application</b>	Fire stopping of insulated copper pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup> .
<b>Fire &amp; Sound classification</b>	
Copper pipes ≤ Ø12mm with ≥ 20mm stone wool insulation in maximum apertures 1200 x 2400mm EI 240 C/C & E 240 C/C	
Copper pipes ≤ Ø54mm with ≥ 20mm stone wool insulation in maximum apertures 1200 x 2400mm EI 180 C/C & E 240 C/C	
Sound reduction (seal only)	48dB
	
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Sheet size:	Drawn date & no:
<b>A4</b>	23/5/18
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. Bare metal pipes passing through the seal must be protected against corrosion using a suitable primer/protection system.
3. The seal can be positioned to either side of the construction or anywhere in between.
4. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
5. Install a stone wool shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal – any small openings should be sealed with Protecta® FR Acrylic.
6. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process
7. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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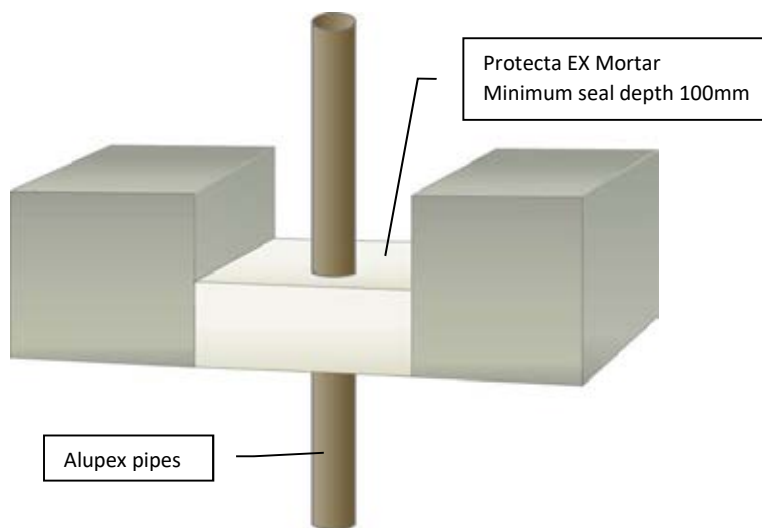
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta EX Mortar Stone wool shutter
<b>Application</b>	Fire stopping of un-insulated alupex pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup> .
<b>Fire &amp; Sound classification</b>	
Alupex pipes ≤ Ø20mm EI 180 C/C & E 180 C/C	
Sound reduction (seal only) 48dB	
	
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Sheet size: <b>A4</b>	Drawn date & no: 23/5/18
Scale: <b>NTS</b>	Drawn by: K.B

Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. The seal can be positioned to either side of the construction or anywhere in between.
3. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
4. Install a shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal.
5. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process
6. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



**Loadbearing Properties**  
 Soft body impact, serviceability 500Nm. Soft body impact, safety in use 700Nm. Hard body impact serviceability 6Nm. Hard body impact, safety in use 10Nm. Concentrated load to 15kN on size up to 1500mm x1000mm (no failure), 4.85kN on sizes up to 1200mm x 2400mm.

**Minimum separations and limitations**  
 An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.




ETA 13/0672 & 18/0855

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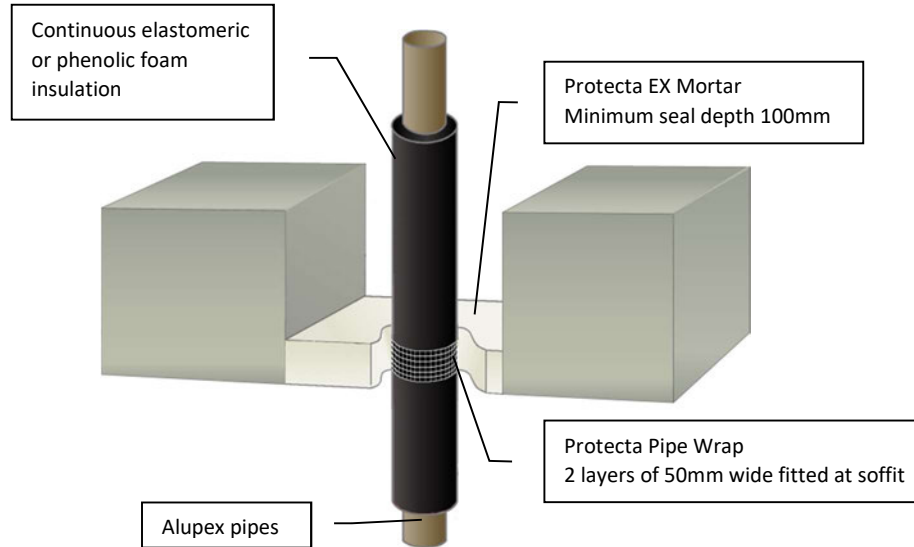
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta EX Mortar
<b>Application</b>	Fire stopping of un-insulated alupex pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m³.
<b>Fire &amp; Sound classification</b>	
Alupex pipes ≤ Ø20mm in maximum apertures 1200 x 2400mm EI 180 C/C & E 180 C/C	
Alupex pipes ≤ Ø75mm in maximum apertures 1200 x 2400mm EI 20 U/C & E 240 U/C	
Sound reduction (seal only)	48dB
	
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<b>A4</b>	23/5/18
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. The seal can be positioned to either side of the construction or anywhere in between.
3. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
4. Install a shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal.
5. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process
6. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



**Loadbearing Properties**

Soft body impact, serviceability 500Nm. Soft body impact, safety in use 700Nm. Hard body impact serviceability 6Nm. Hard body impact, safety in use 10Nm. Concentrated load to 15kN on size up to 1500mm x1000mm (no failure), 4.85kN on sizes up to 1200mm x 2400mm.

**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.




ETA 13/0672 & 18/0855

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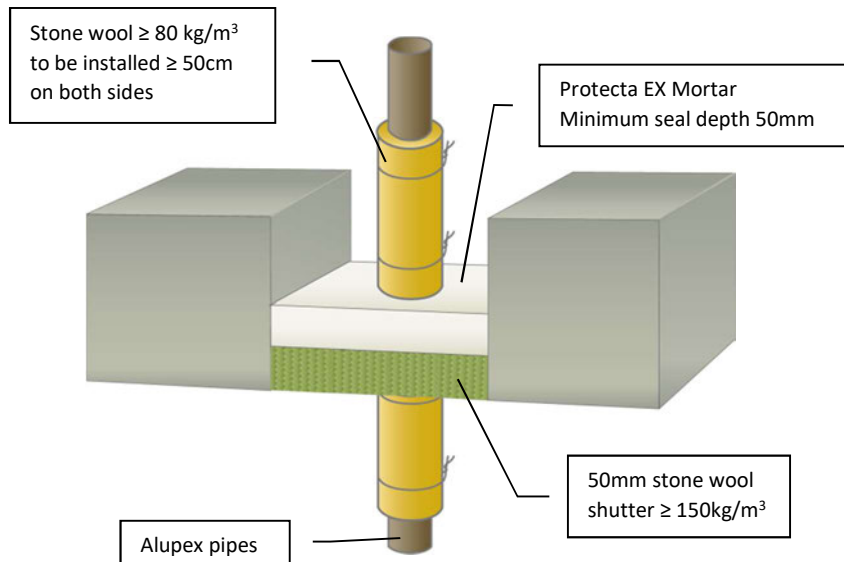
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta EX Mortar Protecta FR Pipe Wrap 25m
<b>Application</b>	Fire stopping of insulated alupex pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>
<b>Fire &amp; Sound classification</b>	
Alupex pipes ≤ Ø16mm with 9mm foam insulation in maximum apertures 1200 x 2400mm EI 240 C/C & E 240 C/C	
Alupex pipes ≤ Ø75mm with 13 - 25mm foam insulation in maximum apertures 1200 x 2400mm EI 90 C/C & E 180 C/C	
Alupex pipes ≤ Ø75mm with 9 - 13mm foam insulation in maximum apertures 1200 x 2400mm EI 90 C/C & E 240 C/C	
Sound reduction (seal only)	48dB
	
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Sheet size:	Drawn date & no:
<b>A4</b>	4/3/19
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. The seal can be positioned to either side of the construction or anywhere in between.
3. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
4. Install a stone wool shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal – any small openings should be sealed with Protecta® FR Acrylic
5. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process
6. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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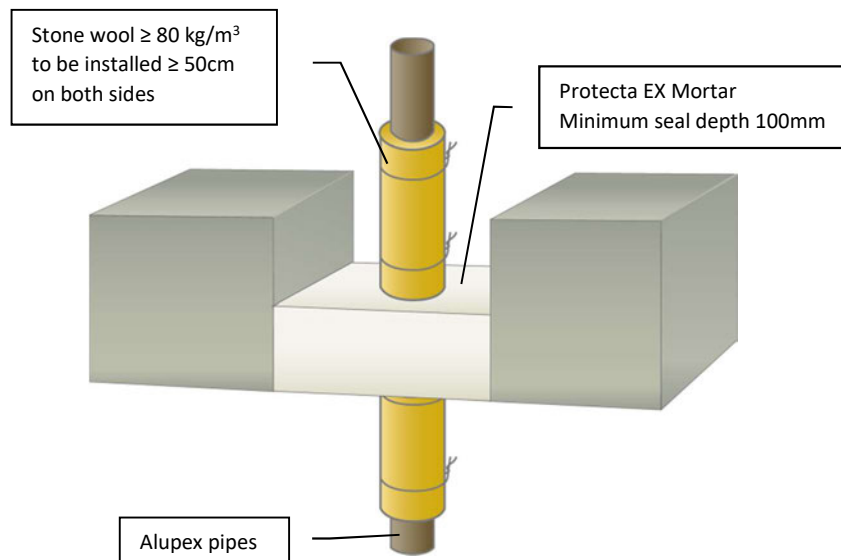
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Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta EX Mortar Stone wool shutter
<b>Application</b>	Fire stopping of insulated alupex pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup> .
<b>Fire &amp; Sound classification</b>	
Alupex pipes ≤ Ø16mm with ≥ 20mm stone wool insulation in maximum apertures 135 x 135mm EI 240 C/C & E 240 C/C	
Alupex pipes ≤ Ø75mm with ≥ 20mm stone wool insulation in maximum apertures 1200 x 2400mm EI 180 C/C & E 180 C/C	
Alupex pipes ≤ Ø75mm with ≥ 20mm stone wool insulation in maximum apertures 135 x 135mm EI 180 C/C & E 240 C/C	
Sound reduction (seal only)	48dB
	
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Sheet size:	Drawn date & no:
<b>A4</b>	20/8/15
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. The seal can be positioned to either side of the construction or anywhere in between.
3. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
4. Install a shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal.
5. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process
6. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



<p><b>Loadbearing Properties</b></p> <p>Soft body impact, serviceability 500Nm. Soft body impact, safety in use 700Nm. Hard body impact serviceability 6Nm. Hard body impact, safety in use 10Nm. Concentrated load to 15kN on size up to 1500mm x1000mm (no failure), 4.85kN on sizes up to 1200mm x 2400mm.</p>
<p><b>Minimum separations and limitations</b></p> <p>An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.</p>



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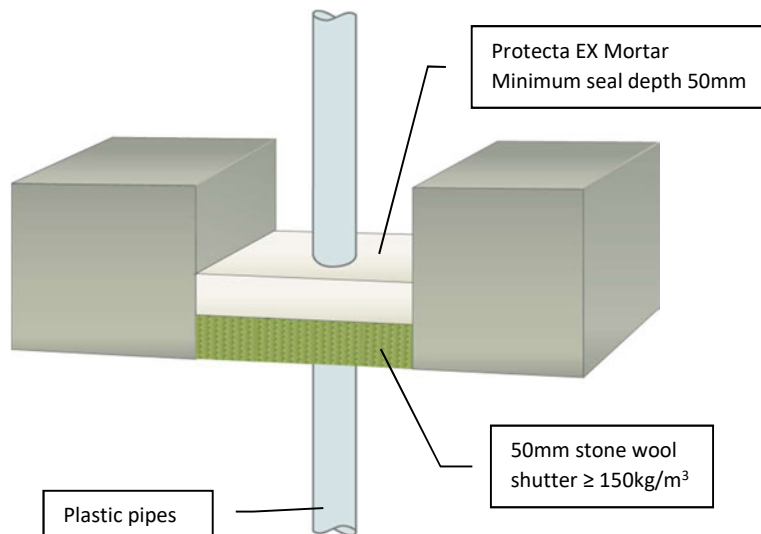
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Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta EX Mortar
<b>Application</b>	Fire stopping of insulated alupex pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m³.
<b>Fire &amp; Sound classification</b>	
Alupex pipes ≤ Ø16mm with ≥ 20mm stone wool insulation in maximum apertures 1200 x 2400mm EI 240 C/C & E 240 C/C	
Alupex pipes ≤ Ø75mm with ≥ 20mm stone wool insulation in maximum apertures 1200 x 2400mm EI 180 C/C & E 240 C/C	
Sound reduction (seal only)	48dB
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Sheet size:	Drawn date & no:
<b>A4</b>	23/5/18
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. The seal can be positioned to either side of the construction or anywhere in between.
3. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
4. Install a stone wool shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal – any small openings should be sealed with Protecta® FR Acrylic
5. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process
6. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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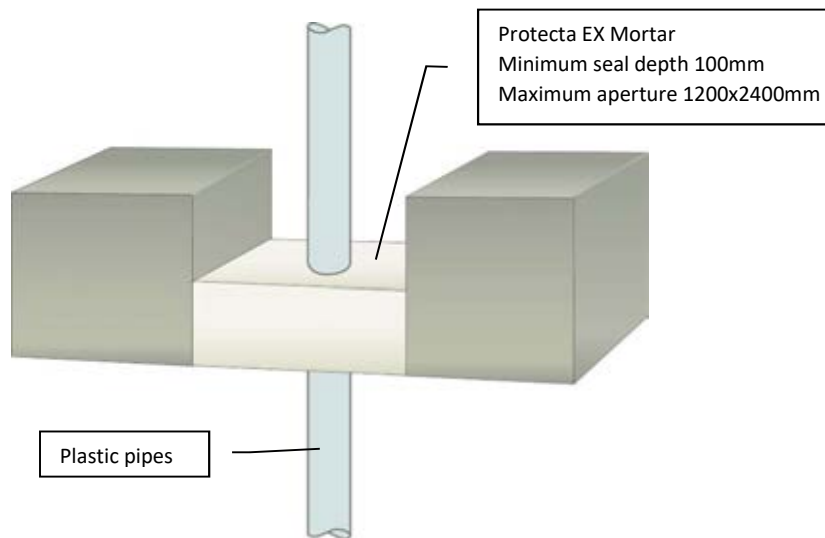
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta EX Mortar Stone wool shutter
<b>Application</b>	Fire stopping of plastic pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m³.
<b>Fire &amp; Sound classification</b>	
PVC-U & PVC-C plastic pipes ≤ Ø40mm in maximum apertures 1200 x 2400mm EI 120 U/C & E 120 U/C	
PEX pipe-in-pipes ≤ Ø25mm in maximum apertures 1200 x 2400mm EI 180 C/C & E 180 C/C	
PEX pipe-in-pipes ≤ Ø25mm in maximum apertures 550 x 1100mm EI 240 C/C & E 240 C/C	
Sound reduction (seal only)	48dB
	
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Sheet size:	Drawn date & no:
<b>A4</b>	23/5/18
Scale:	Drawn by:
<b>NTS</b>	K.B

Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. The seal can be positioned to either side of the construction or anywhere in between.
3. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
4. Install a shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal.
5. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process
6. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



**Loadbearing Properties**

Soft body impact, serviceability 500Nm. Soft body impact, safety in use 700Nm. Hard body impact serviceability 6Nm. Hard body impact, safety in use 10Nm. Concentrated load to 15kN on size up to 1500mm x1000mm (no failure), 4.85kN on sizes up to 1200mm x 2400mm.

**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.




ETA 13/0672 & 18/0855

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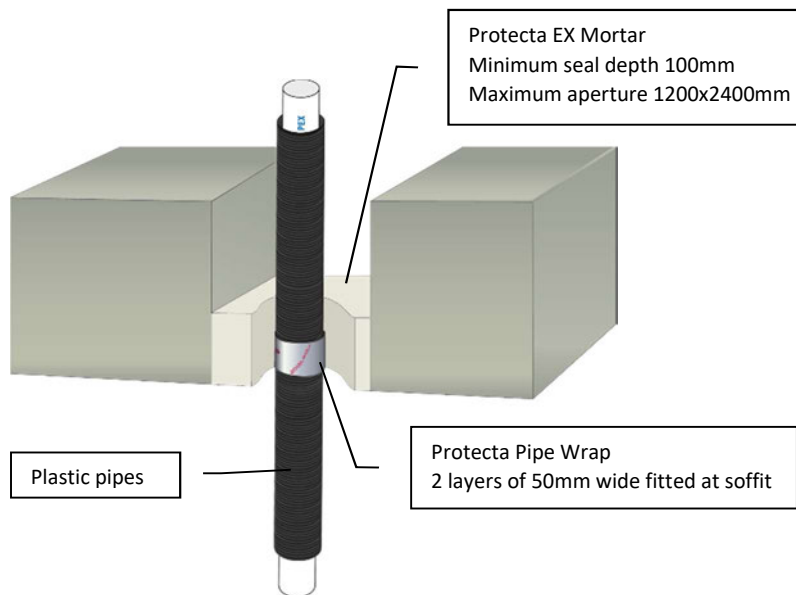
Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta EX Mortar
<b>Application</b>	Fire stopping of plastic pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m³.
<b>Fire &amp; Sound classification</b>	
PE, ABS, SAN+PVC & PP plastic pipes ≤ Ø40mm EI 120 U/C & E 120 U/C	
PVC-U & PVC-C plastic pipes ≤ Ø40mm EI 120 U/C & E 120 U/C	
PEX pipe-in-pipes ≤ Ø25mm EI 240 C/C & E 240 C/C	
Sound reduction (seal only)	48dB
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
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<b>A4</b>	23/5/18
Scale:	Drawn by:
<b>NTS</b>	K.B



Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. The seal can be positioned to either side of the construction or anywhere in between.
3. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
4. Install a shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal.
5. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process
6. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



**Loadbearing Properties**

Soft body impact, serviceability 500Nm. Soft body impact, safety in use 700Nm. Hard body impact serviceability 6Nm. Hard body impact, safety in use 10Nm. Concentrated load to 15kN on size up to 1500mm x1000mm (no failure), 4.85kN on sizes up to 1200mm x 2400mm.

**Minimum separations and limitations**


An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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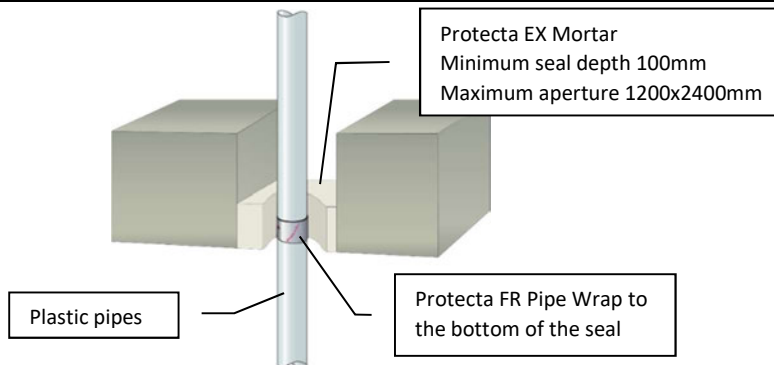
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta EX Mortar Protecta FR Pipe Wrap 25m
<b>Application</b>	Fire stopping of plastic pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup> .
<b>Fire &amp; Sound classification</b>	
PEX pipe-in-pipes ≤ Ø54mm EI 120 C/C & E 120 C/C	
Sound reduction (seal only)	48dB
	
Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
<b>A4</b>	4/3/19
Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. The seal can be positioned to either side of the construction or anywhere in between.
3. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
4. Install a shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal.
5. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process
6. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



Services	Pipe Wall Thickness	Pipe Wrap	Classification
≤ Ø40mm PVC-U & PVC-C	1.8 – 3.7mm	50 x 1.8mm (1 layer)	EI 120 U/U (E 180 U/U)
≤ Ø40mm PE, ABS & SAN+PVC	2.4 – 3.7mm	50 x 1.8mm (1 layer)	EI 240 U/U (E 240 U/U)
≤ Ø40mm PP	1.8 – 5.5mm	50 x 1.8mm (1 layer)	EI 120 U/U (E 120 U/U)
≤ Ø110mm PVC-U & PVC-C	1.9 – 6.6mm	50 x 3.6mm (2 layers)	EI 240 U/C (E 240 U/C)
≤ Ø110mm PE, ABS & SAN+PVC	2.5 – 10.0mm	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
≤ Ø110mm PP	1.9 – 6.3mm	50 x 3.6mm (2 layers)	EI 240 U/C (E 240 U/C)
≤ Ø125mm PVC-U & PVC-C	3.5 – 7.4mm	50 x 7.2mm (4 layers)	EI 120 U/C (E 120 U/C)
≤ Ø125mm PE, ABS & SAN+PVC	3.9 – 11.4mm	50 x 7.2mm (4 layers)	EI 240 U/C (E 240 U/C)
≤ Ø125mm PP	3.4 – 11.4mm	50 x 7.2mm (4 layers)	EI 240 U/C (E 240 U/C)
≤ Ø160mm PVC-U & PVC-C	4.5 – 9.5mm	50 x 10.8mm (6 layers)	EI 90 C/C (E 90 C/C)
≤ Ø160mm PVC-U & PVC-C	4.5mm	50 x 10.8mm (6 layers)	EI 240 C/C (E 240 C/C)
≤ Ø160mm PVC-U & PVC-C	9.5mm	50 x 10.8mm (6 layers)	EI 90 U/C (E 90 U/C)
≤ Ø160mm PE, ABS & SAN+PVC	4.9 – 14.6mm	50 x 10.8mm (6 layers)	EI 120 U/C (E 120 U/C)
≤ Ø160mm PP	4.9 – 14.6mm	50 x 10.8mm (6 layers)	EI 240 U/C (E 240 U/C)
≤ Ø250mm PE, ABS & SAN+PVC	7.8mm	75 x 12.6mm (7 layers)	EI 180 C/C (E 180 C/C)

**Loadbearing Properties**

Soft body impact, serviceability 500Nm. Soft body impact, safety in use 700Nm. Hard body impact serviceability 6Nm. Hard body impact, safety in use 10Nm. Concentrated load to 15kN on size up to 1500mm x1000mm (no failure), 4.85kN on sizes up to 1200mm x 2400mm.

**Minimum separations and limitations**

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ETA 13/0672 & 18/0855

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For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:

Job Title:

**Products** Protecta EX Mortar  
Protecta FR Pipe Wrap 25m

**Application** Fire stopping of plastic pipes in rigid floors

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>

**Fire & Sound classification**

Fire classifications in table on the left.

Sound reduction (seal only) 48dB

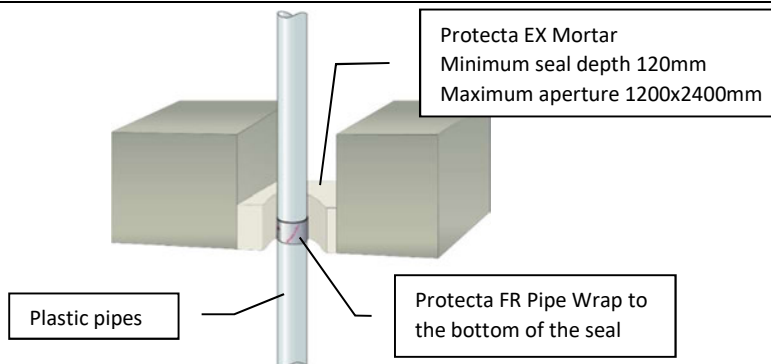
Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB  
Tel: +44 (0) 148 4421036  
Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

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Scale: **NTS** Drawn by: K.B

### Installation Instructions

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6. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



Services	Pipe Wall Thickness	Pipe Wrap	Classification
Ø160mm PVC-U & PVC-C	4.5 – 9.5mm	50 x 10.8mm (6 layers)	EI 120 U/C (E 120 U/C)
≤ Ø200mm PP	4.9 – 18.2mm	75 x 10.8mm (6 layers)	EI 240 C/C (E 240 C/C)
≤ Ø315mm PVC-U & PVC-C	4.5 – 12.1mm	75 x 18.0mm (10 layers)	EI 90 C/C (E 90 C/C)
Ø315mm PVC-U & PVC-C	7.7mm	75 x 18.0mm (10 layers)	EI 120 C/C (E 120 C/C)

#### Loadbearing Properties

Soft body impact, serviceability 500Nm. Soft body impact, safety in use 700Nm. Hard body impact serviceability 6Nm. Hard body impact, safety in use 10Nm. Concentrated load to 15kN on size up to 1500mm x1000mm (no failure), 4.85kN on sizes up to 1200mm x 2400mm.

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ETA 13/0672 & 18/0855

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Signed and approved:

Client:

Job Title:

**Products** Protecta EX Mortar  
Protecta FR Pipe Wrap 25m

**Application** Fire stopping of plastic pipes in rigid floors

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>

#### Fire & Sound classification

Fire classifications in table on the left.

Sound reduction (seal only)

48dB



# Protecta®

Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB

Tel: +44 (0) 148 4421036

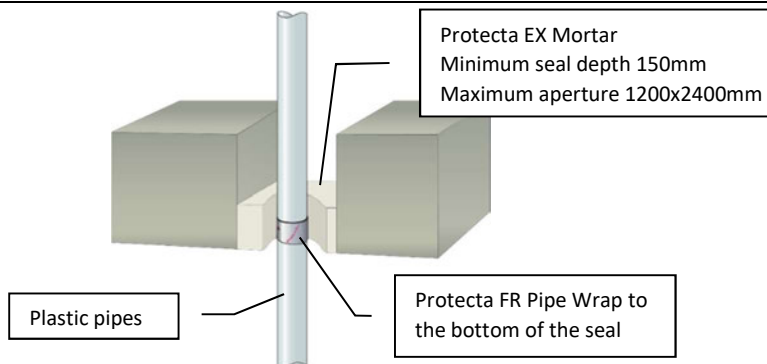
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Services	Pipe Wall Thickness	Pipe Wrap	Classification
≤ Ø40mm PVC-U & PVC-C	1.8 – 3.7mm	50 x 1.8mm (1 layer)	EI 120 U/U (E 180 U/U)
≤ Ø40mm PE, ABS & SAN+PVC	2.4 – 3.7mm	50 x 1.8mm (1 layer)	EI 240 U/U (E 240 U/U)
≤ Ø40mm PP	1.8 – 5.5mm	50 x 1.8mm (1 layer)	EI 120 U/U (E 120 U/U)
≤ Ø110mm PVC-U & PVC-C	1.9 – 6.8mm	50 x 7.2mm (4 layers)	EI 60 U/U (E 60 U/U)
≤ Ø110mm PE, ABS & SAN+PVC	3.4 – 10.0mm	75 x 5.4mm (3 layers)	EI 240 U/U (E 240 U/U)
≤ Ø110mm PP	3.7 – 10.5mm	50 x 7.2mm (4 layers)	EI 240 U/U (E 240 U/U)
≤ Ø125mm PVC-U & PVC-C	1.9 – 7.4mm	50 x 7.2mm (4 layers)	EI 60 U/U (E 60 U/U)
Ø125mm PVC-U & PVC-C	7.4mm	50 x 7.2mm (4 layers)	EI 120 U/U (E 120 U/U)
Ø125mm PE, ABS & SAN+PVC	11.4mm	50 x 7.2mm (4 layers)	EI 240 U/U (E 240 U/U)
Ø125mm PP	11.4mm	50 x 7.2mm (4 layers)	EI 240 U/U (E 240 U/U)
Ø140mm PVC-U & PVC-C	6.5 – 8.3mm	75 x 10.8mm (6 layers)	EI 30 U/U (E 120 U/U)
Ø140mm PE, ABS & SAN+PVC	8.0 – 12.4mm	75 x 10.8mm (6 layers)	EI 120 U/U (E 240 U/U)
Ø140mm PP	12.8mm	75 x 7.2mm (4 layers)	EI 240 U/U (E 240 U/U)
Ø160mm PVC-U & PVC-C	9.5mm	75 x 7.2mm (4 layers)	EI 30 U/U (E 120 U/U)
≤ Ø160mm PE, ABS & SAN+PVC	4.9 – 14.6mm	75 x 7.2mm (4 layers)	EI 120 U/U (E 120 U/U)
≤ Ø160mm PE, ABS & SAN+PVC	3.9 – 14.6mm	75 x 18.0mm (10 layers)	EI 120 U/U (E 240 U/U)
Ø160mm PP	14.6mm	75 x 7.2mm (4 layers)	EI 240 U/U (E 240 U/U)
≤ Ø315mm PE, ABS & SAN+PVC	4.9 – 18.7mm	75 x 18.0mm (10 layers)	EI 60 C/C (E 60 C/C)
≤ Ø315mm PP	4.9 – 28.6mm	75 x 18.0mm (10 layers)	EI 60 C/C (E 60 C/C)
Ø315mm PP	7.7mm	75 x 18.0mm (10 layers)	EI 180 C/C (E 180 C/C)

#### Minimum separations and limitations

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ETA 13/0672 & 18/0855

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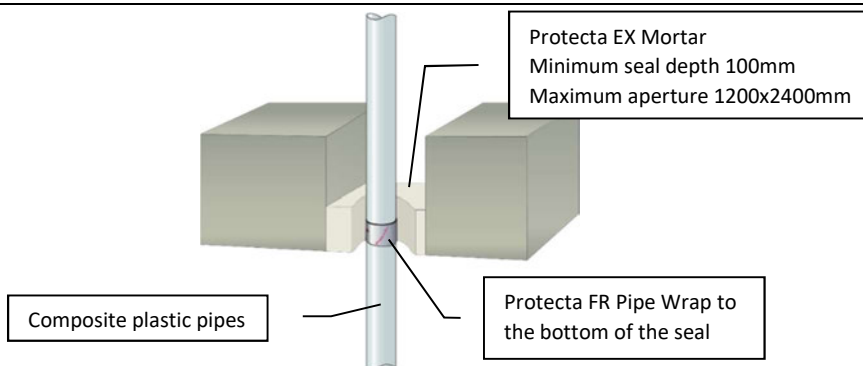
For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta EX Mortar Protecta FR Pipe Wrap 25m
<b>Application</b>	Fire stopping of plastic pipes in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>
<b>Fire &amp; Sound classification</b>	
Fire classifications in table on the left.	
Sound reduction (seal only)	48dB
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
<b>A4</b>	4/3/19
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<b>NTS</b>	K.B

### Installation Instructions

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2. The seal can be positioned to either side of the construction or anywhere in between.
3. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
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6. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



Services	Pipe Wrap	Classification
Ø 32mm Aquatherm Green SDR9 pipes	50 x 1.8mm (1 layer)	EI 240 C/C (E 240 C/C)
≤ Ø 110mm Aquatherm Green SDR9 pipes	50 x 3.6mm (2 layers)	EI 240 C/C (E 240 C/C)
≤ Ø 50mm Geberit Silent-PP pipes	50 x 3.6mm (2 layers)	EI 120 U/U (E 120 U/U)
≤ Ø 110mm Geberit Silent-PP pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
≤ Ø 110mm Polo-Kal NG pipes	50 x 3.6mm (2 layers)	EI 180 U/C (E 180 U/C)
Ø 125mm Polo-Kal NG pipes	50 x 7.2mm (4 layers)	EI 240 U/C (E 240 U/C)
Ø 160mm Polo-Kal NG pipes	50 x 10.8mm (6 layers)	EI 240 U/C (E 240 U/C)
≤ Ø 50mm Rehau Raupiano Plus pipes	50 x 3.6mm (2 layers)	EI 120 U/U (E 120 U/U)
≤ Ø 110mm Rehau Raupiano Plus pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
Ø 125mm Rehau Raupiano Plus pipes	50 x 7.2mm (4 layers)	EI 120 U/C (E 240 U/C)
Ø 160mm Rehau Raupiano Plus pipes	50 x 10.8mm (6 layers)	EI 120 U/C (E 120 U/C)
≤ Ø 50mm Wavin SiTech pipes	50 x 3.6mm (2 layers)	EI 120 U/U (E 120 U/U)
≤ Ø 110mm Wavin SiTech pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)

#### Loadbearing Properties

Soft body impact, serviceability 500Nm. Soft body impact, safety in use 700Nm. Hard body impact serviceability 6Nm. Hard body impact, safety in use 10Nm. Concentrated load to 15kN on size up to 1500mm x1000mm (no failure), 4.85kN on sizes up to 1200mm x 2400mm.

#### Minimum separations and limitations

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



ETA 13/0672 & 18/0855

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Signed and approved:

Client:

Job Title:

**Products** Protecta EX Mortar  
Protecta FR Pipe Wrap 25m

**Application** Fire stopping of composite plastic pipes in rigid floors

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>

#### Fire & Sound classification

Fire classifications in table on the left.

Sound reduction (seal only) 48dB



# Protecta®

Polyseam Ltd, 15 St Andrews Road,  
Huddersfield, West Yorkshire, HD1 6SB

Tel: +44 (0) 148 4421036

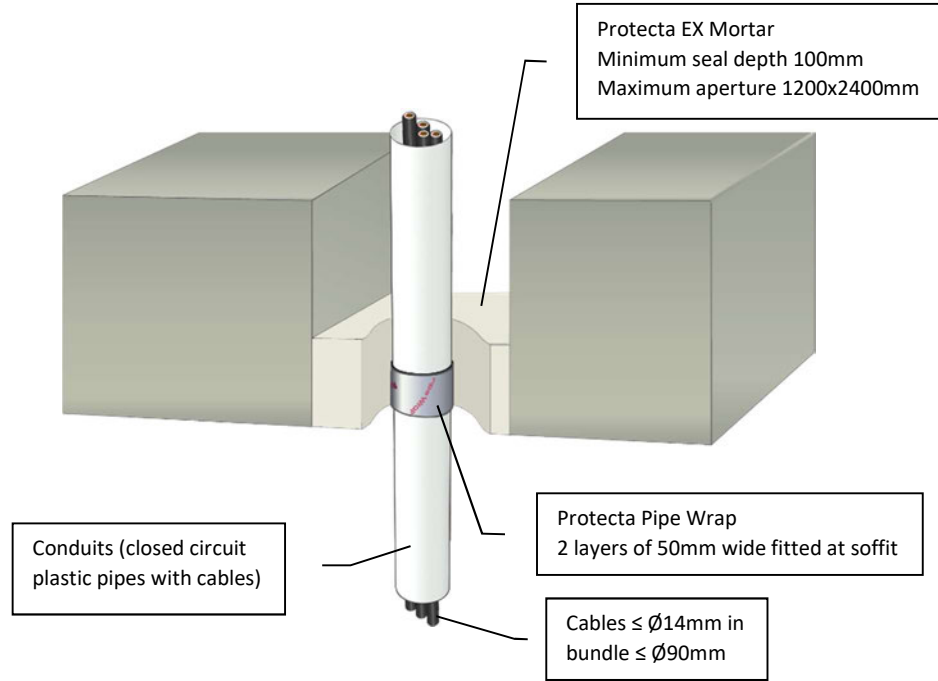
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Installation Instructions

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<p><b>Loadbearing Properties</b></p> <p>Soft body impact, serviceability 500Nm. Soft body impact, safety in use 700Nm. Hard body impact serviceability 6Nm. Hard body impact, safety in use 10Nm. Concentrated load to 15kN on size up to 1500mm x1000mm (no failure), 4.85kN on sizes up to 1200mm x 2400mm.</p>
<p><b>Minimum separations and limitations</b></p> <p>An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.</p>



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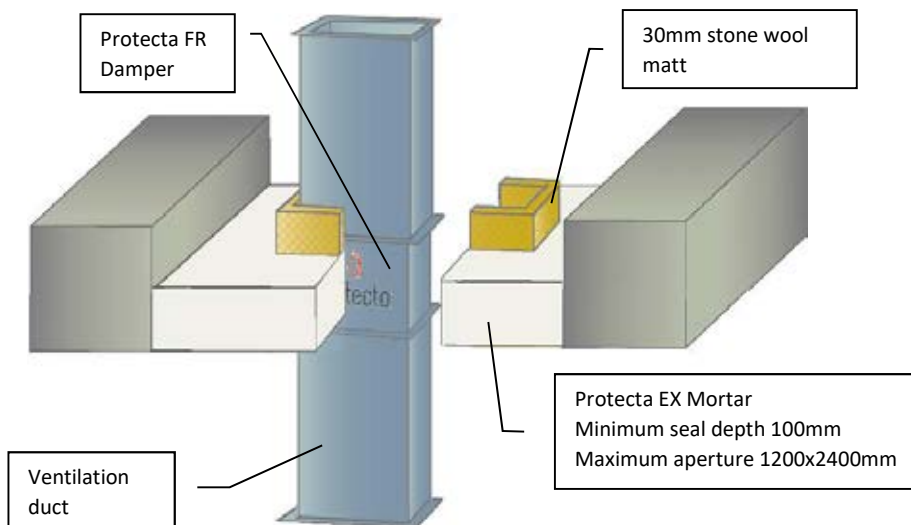
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Signed and approved:

Client:	
Job Title:	
<b>Products</b>	Protecta EX Mortar Protecta FR Pipe Wrap 25m
<b>Application</b>	Fire stopping of conduits in rigid floors
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>
<b>Fire &amp; Sound classification</b>	
Conduits of PE, ABS & SAN+PVC plastic pipes ≤ Ø110mm EI 60 U/C & E 120 U/C	
Conduits of PVC-U & PVC-C plastic pipes ≤ Ø110mm EI 120 U/C & E 120 U/C	
Conduits of PP plastic pipes ≤ Ø110mm EI 60 U/C & E 60 U/C	
Sound reduction (seal only)	48dB
 <b>Protecta®</b> Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB Tel: +44 (0) 148 4421036 Email: <a href="mailto:post.uk@polyseam.com">post.uk@polyseam.com</a>	
Sheet size:	Drawn date & no:
<b>A4</b>	4/3/19
Scale:	Drawn by:
<b>NTS</b>	K.B

**Installation Instructions**

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. Bare metal passing through the seal must be protected against corrosion using a suitable primer/protection system.
3. The seal can be positioned to either side of the construction or anywhere in between.
4. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab.
5. Install a shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal.
6. Pour clean water into a suitable mixing vessel and add the mortar to obtain the required consistency. Mix steadily at low speed and ensure that any lumps of powder are fully dispersed. Always add the mortar to the water, do not reverse this mixing process.
7. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.
8. Insulate the ventilation duct towards the fire seal on the top side with 30mm thick stone wool matting to the length given on this page.



**Loadbearing Properties**  
 Soft body impact, serviceability 500Nm. Soft body impact, safety in use 700Nm. Hard body impact serviceability 6Nm. Hard body impact, safety in use 10Nm. Concentrated load to 15kN on size up to 1500mm x1000mm (no failure), 4.85kN on sizes up to 1200mm x 2400mm.

**Minimum separations and limitations**  
 An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



As a part of our policy of on-going product development and testing, we reserve the right to modify, alter or change product specifications without giving notice. All information contained in this document is given in good faith and is provided for guidance only. Any drawings provided are for illustrative purposes only. As Polyseam has no control over the methods or competence of installation and of prevailing site conditions, no warranties, expressed or implied, is intended to be given as to the actual performance of the product mentioned or referred to herein and no liability whatsoever will be accepted for any loss, damage or injury arising from the use of the information given.

For all technical details on the products specified please refer to the technical data sheets that can be found on [www.protecta.eu](http://www.protecta.eu)

Signed and approved:

Client:

Job Title:

**Products** Protecta EX Mortar  
Protecta FR Damper

**Application** Fire stopping of ventilation ducts in rigid floors

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>.

**Fire & Sound classification**

≤ Ø 400mm damper/duct with ≥ 150mm stone wool matt on the top side	EI 120 & E 180
≤ Ø 1000mm damper/duct with ≥ 500mm stone wool matt on the top side	EI 90 & E 90
≤ 600 x 1000mm damper/duct with ≥ 500mm stone wool matt on the top side	EI 60 & E 90
≤ 1000 x 1000mm damper/duct with ≥ 500mm stone wool matt on the top side	EI 90 & E 90
Sound reduction (seal only)	48dB

**Protecta®**  
 Polyseam Ltd, 15 St Andrews Road,  
 Huddersfield, West Yorkshire, HD1 6SB  
 Tel: +44 (0) 148 4421036  
 Email: [post.uk@polyseam.com](mailto:post.uk@polyseam.com)

Sheet size: **A4** Drawn date & no: **27/7/17**

Scale: **NTS** Drawn by: **K.B**

# Appendix V

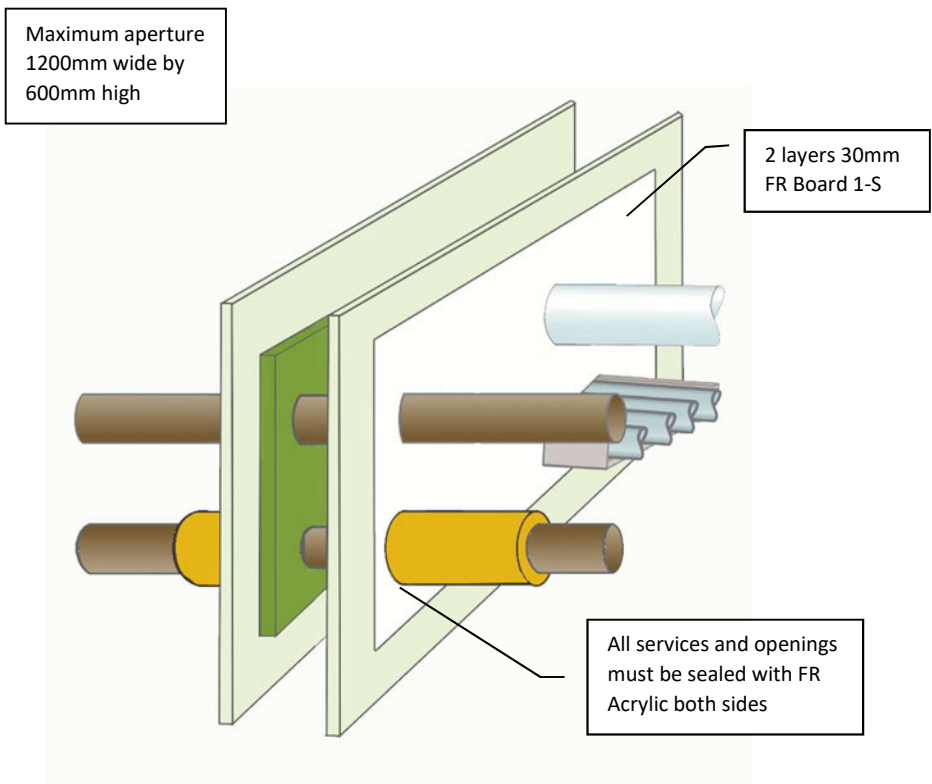
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## Apertures with mixed services



### Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Protecta® FR Coating and Protecta® FR Acrylic are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. The coated side of the board should be flush with the surface of the gypsum on both sides.
4. When fire sealing shaft walls consisting of gypsum only on one side, subject to authority approval, install Protecta® FR Board on the exposed side. The board should be facing the (fire) exposed side.
5. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
6. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
7. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



### Minimum separations and limitations

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.

### MIXED SERVICE APERTURE

Fire Classification **EI 30**  
Sound Reduction **29 dB**

Installation details - Page 1 of 2

<b>Products</b>	Protecta FR Board Protecta FR Acrylic
<b>Construction</b>	Minimum wall thickness of 75 mm and comprise steel studs or timber studs* lined on both faces with minimum 1 layer of 12.5 mm thick boards

### Services

1. Cables and cable trays
2. Steel pipes
3. Plastic pipes

For full specification see page 2.

### Indoor air comfort test results

- French A+ – Complies
- BREEAM-NOR – Complies
- DIBt – Complies
- M1 Protocol – Complies

### Durability

Y<sub>1</sub> - Intended for use at temperatures below 0°C with exposure to UV and humidity but no exposure to rain. Includes lower classes Y<sub>2</sub>, Z<sub>1</sub> and Z<sub>2</sub>.



ETA 13/0673 & 18/0855



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For all technical details on the products specified please refer to the technical data sheets that can be found on <http://www.protecta.eu>

Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB, United Kingdom  
Tel: +44 (0) 1484 421 036

Scale:  
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Drawn by & date:  
K.B. 16/3/19

**MIXED SERVICE APERTURE**Fire Classification **EI 30**Sound Reduction **29 dB**

List of services - Page 2 of 2

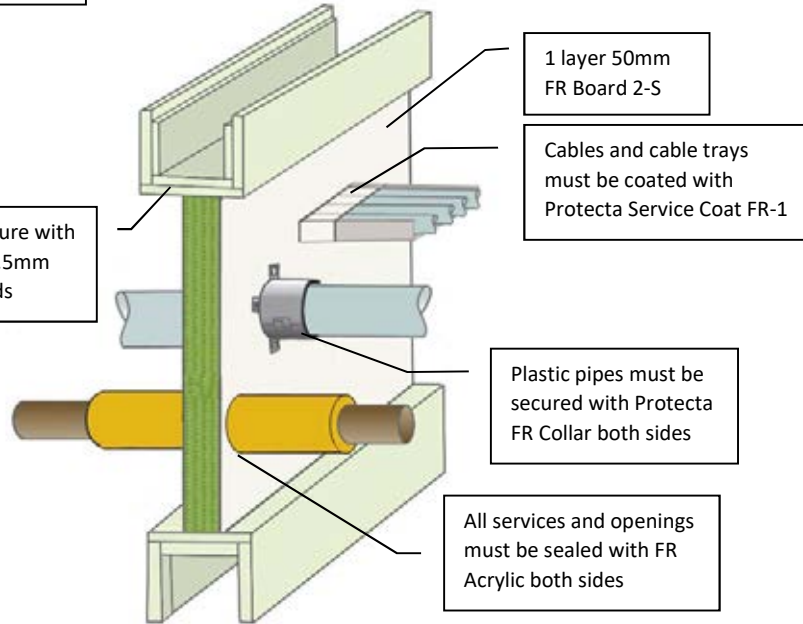
Type of Services	Size of Services	Pipe wall thicknesses	Pipe Insulation	Pipe Wraps or Coat Back
Cables, single or bundled, with or without cable trays	≤ Ø80mm per cable	-	-	-
Steel pipes C/U	≤ Ø22mm per pipe	-	None	-
	≤ Ø324mm per pipe	-	20-30mm thick continuous stone wool ≥ 80kg/m <sup>3</sup>	-
PVC-U and PVC-C pipes	≤ Ø32mm per pipe	1.0 – 1.8mm	None	None

Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. The board can be positioned to either side of the construction or anywhere in between.
3. When fire sealing shaft walls consisting of gypsum only on one side, subject to authority approval, install Protecta® FR Board on the (fire) exposed side.
4. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
5. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
6. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.

Maximum aperture  
1200mm wide by  
600mm high

Framed aperture with  
2 layers of 12.5mm  
gypsum boards



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.

**MIXED SERVICE APERTURE**

Fire Classification **EI 60**  
Sound Reduction **29 dB**

Installation details - Page 1 of 2

<b>Products</b>	Protecta FR Board Protecta FR Acrylic Protecta FR Collar Protecta ServiceCoat FR-1
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards.

<b>Services</b>	<ol style="list-style-type: none"> <li>1. Cables, cable trays and ladders</li> <li>2. Steel pipes</li> <li>3. Plastic pipes</li> </ol> <p>For full specification see page 2.</p>
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<b>Indoor air comfort test results</b>	<ul style="list-style-type: none"> <li>• French A+ – Complies</li> <li>• BREEAM-NOR – Complies</li> <li>• DIBt – Complies</li> <li>• M1 Protocol – Complies</li> </ul>
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<b>Durability</b>	Y <sub>1</sub> - Intended for use at temperatures below 0°C with exposure to UV and humidity but no exposure to rain. Includes lower classes Y <sub>2</sub> , Z <sub>1</sub> and Z <sub>2</sub> .
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ETA 13/0673 & 18/0855

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Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB, United Kingdom  
Tel: +44 (0) 1484 421 036

Scale: <b>NTS</b>	Drawn by & date: K.B. 16/3/19
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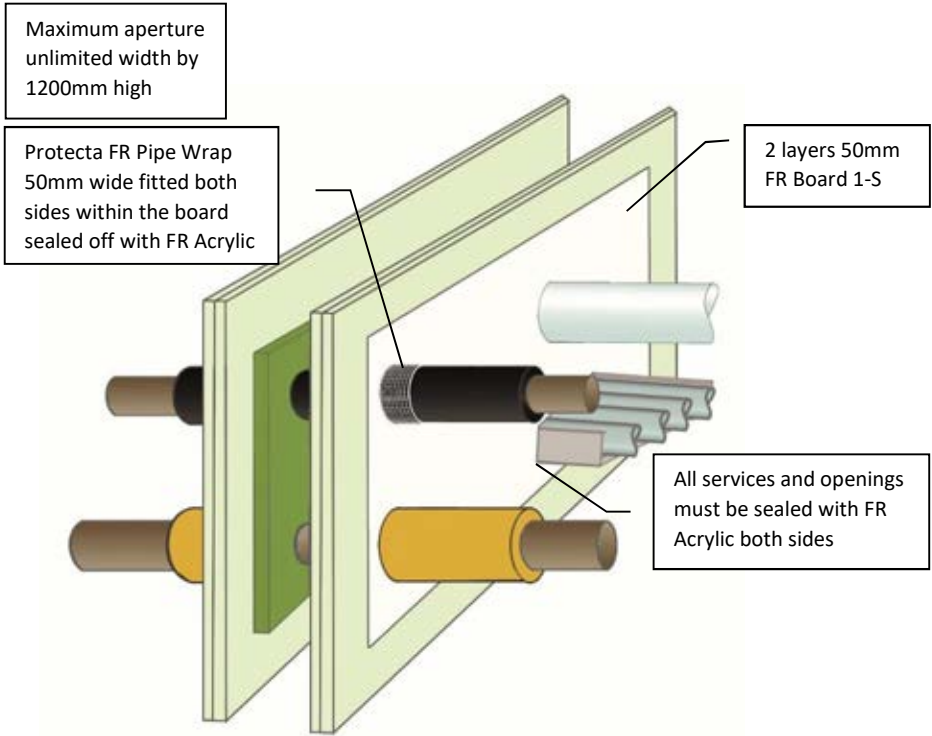
**MIXED SERVICE APERTURE**Fire Classification **EI 60**Sound Reduction **29 dB**

List of services - Page 2 of 2

Type of Services	Size of Services	Pipe wall thicknesses	Pipe Insulation	Pipe Collars or Coat Back
Cables, single or bundled, with or without perforated cable trays and ladders	≤ Ø80mm per cable	-	-	150mm each side with 300µ WFT Protecta Service Coat FR-1
Steel pipes C/U	≤ Ø324mm per pipe	-	20-30mm thick continuous stone wool ≥ 80kg/m <sup>3</sup>	-
PVC-U and PVC-C pipes U/C	≤ Ø110mm per pipe	1.9 – 6.6mm	None	Protecta FR Collar 50mm high ≤ Ø110mm with pig tail fixings on both sides
PE, ABS and SAN+PVC pipes C/C	≤ Ø110mm per pipe	3.0 – 10.0mm		

**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Protecta® FR Coating and Protecta® FR Acrylic are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. The coated side of the board should be flush with the surface of the gypsum on both sides.
4. When fire sealing shaft walls consisting of gypsum only on one side, subject to authority approval, install Protecta® FR Board on the exposed side. The board should be facing the (fire) exposed side.
5. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
6. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
7. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB, United Kingdom  
Tel: +44 (0) 1484 421 036

**MIXED SERVICE APERTURE**

Fire Classification **EI 60**  
Sound Reduction **52 dB**

Installation details - Page 1 of 4

<b>Products</b>	Protecta FR Board Protecta FR Acrylic Protecta FR Pipe Wrap
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise steel studs or timber studs* lined on both faces with minimum 2 layers of 12.5 mm thick boards.

**Services**

1. Cables, with or without cable trays
2. Steel pipes
3. Copper pipes
4. Alupex pipes
5. Plastic pipes
6. Composite pipes
7. Conduits
8. Ventilation ducts

For full specification see pages 2 - 4.

**Indoor air comfort test results**

- French A+ – Complies
- BREEAM-NOR – Complies
- DIBt – Complies
- M1 Protocol – Complies

**Durability**

Y<sub>1</sub> - Intended for use at temperatures below 0°C with exposure to UV and humidity but no exposure to rain. Includes lower classes Y<sub>2</sub>, Z<sub>1</sub> and Z<sub>2</sub>.

Scale: <b>NTS</b>	Drawn by & date: K.B. 16/3/19
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**MIXED SERVICE APERTURE**Fire Classification **EI 60**Sound Reduction **52 dB**

List of services - Page 2 of 4

Type of Services	Size of Services	Pipe wall thicknesses	Pipe Insulation	Pipe config	Pipe Wraps
Cables, single or bundled, with or w/o trays	≤ Ø80mm per cable	-	-	-	-
Unsheathed cables/wires, with or w/o trays	≤ 185mm <sup>2</sup> per wire	-	-	-	-
Steel or PVC conduits, with or w/o trays	≤ Ø16mm per conduit	-	-	C/U	-
Steel pipes	≤ Ø22mm per pipe	-	None	C/U	-
	≤ Ø40mm per pipe	-	13mm thick continuous elastomeric or PE	U/U	1 layer of 50mm wide both sides
	≤ Ø165mm per pipe	-	13 - 32mm thick continuous elastomeric or PE	U/U	2 layers of 50mm wide both sides
	≤ Ø324mm per pipe	-	32 - 50mm thick continuous elastomeric or PE	C/U	3 layers of 50mm wide both sides
	≤ Ø324mm per pipe	-	20 - 80mm thick continuous stone wool ≥ 80kg/m <sup>3</sup>	C/U	-
	≤ Ø40mm per pipe	-	≥ 20mm thick x 500mm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/U	-
	≤ Ø219mm per pipe	-	≥ 30mm thick x 500mm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/U	-
Copper pipes	≤ Ø6mm per pipe	-	None	C/C	-
	≤ Ø54mm per pipe	-	9 - 25mm thick continuous elastomeric or PE	C/C	2 layers of 50mm wide both sides
	≤ Ø54mm per pipe	-	≥ 20mm thick x 500mm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/C	-
Alupex pipes	≤ Ø20mm per pipe	-	None	C/C	-
	≤ Ø75mm per pipe	-	9 - 25mm thick continuous elastomeric or PE	C/C	2 layers of 50mm wide both sides
	≤ Ø75mm per pipe	-	≥ 20mm thick x 500mm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/C	-
PVC-U & PVC-C pipes	≤ Ø32mm per pipe	1.0-2.4mm	-	U/C	None
	≤ Ø40mm per pipe	1.9-3.0mm	-	U/U	1 layer of 50mm wide both sides
	≤ Ø110mm per pipe	2.7-6.6mm	-	U/C	2 layers of 50mm wide both sides
	≤ Ø125mm per pipe	3.7-7.4mm	-	U/C	3 layers of 50mm wide both sides
	≤ Ø160mm per pipe	9.5mm	-	U/C	4 layers of 50mm wide both sides
	≤ Ø315mm per pipe	7.7-12.1mm	-	C/C	10 layers of 50mm wide both sides
	≤ Ø400mm per pipe	9.8-15.3mm	-	C/C	16 layers of 50mm wide both sides

**MIXED SERVICE APERTURE**Fire Classification **EI 60**Sound Reduction **52 dB**

List of services - Page 3 of 4

Type of Services	Size of Services	Pipe wall thicknesses	Pipe Insulation	Pipe config	Pipe Wraps
PE, ABS and SAN+PVC pipes	≤ Ø32mm per pipe	2.0-3.0mm	-	U/C	None
	≤ Ø40mm per pipe	2.4-3.7mm	-	U/U	1 layer of 50mm wide both sides
	≤ Ø110mm per pipe	4.2-10.0mm	-	U/C	2 layers of 50mm wide both sides
	≤ Ø125mm per pipe	4.8-12.0mm	-	U/C	3 layers of 50mm wide both sides
	≤ Ø160mm per pipe	14.6mm	-	U/C	4 layers of 50mm wide both sides
PP pipes	≤ Ø32mm per pipe	1.8-2.2mm	-	U/C	None
	≤ Ø40mm per pipe	1.8-5.5mm	-	U/U	1 layer of 50mm wide both sides
	≤ Ø110mm per pipe	2.7-15.1mm	-	U/U	2 layers of 50mm wide both sides
	≤ Ø125mm per pipe	3.1-17.1mm	-	U/C	3 layers of 50mm wide both sides
	≤ Ø160mm per pipe	21.9mm	-	U/C	4 layers of 50mm wide both sides
PEX pipe-in-pipes	≤ Ø25mm per pipe	-	-	C/C	None
	≤ Ø54mm per pipe	-	-	C/C	2 layers of 50mm wide both sides
	≤ Ø25mm in bundles ≤ Ø50mm	-	-	C/C	2 layers of 50mm wide both sides
Aquatherm Green SDR9 pipes	Ø32mm per pipe	-	-	C/C	1 layer of 50mm wide both sides
	≤ Ø110mm per pipe	-	-	C/C	2 layers of 50mm wide both sides
BluePower pipes	≤ Ø50mm per pipe	-	-	U/U	2 layers of 50mm wide both sides
	≤ Ø110mm per pipe	-	-	C/U	2 layers of 50mm wide both sides
Geberit Silent-PP pipes	≤ Ø50mm per pipe	-	-	U/U	2 layers of 50mm wide both sides
	≤ Ø110mm per pipe	-	-	U/C	2 layers of 50mm wide both sides
Polo-Kal NG pipes	≤ Ø50mm per pipe	-	-	U/U	2 layers of 50mm wide both sides
	≤ Ø110mm per pipe	-	-	U/C	2 layers of 50mm wide both sides
	Ø125mm per pipe	-	-	U/C	4 layers of 50mm wide both sides
	Ø160mm per pipe	-	-	U/C	6 layers of 50mm wide both sides

**MIXED SERVICE APERTURE**Fire Classification **EI 60**Sound Reduction **52 dB**

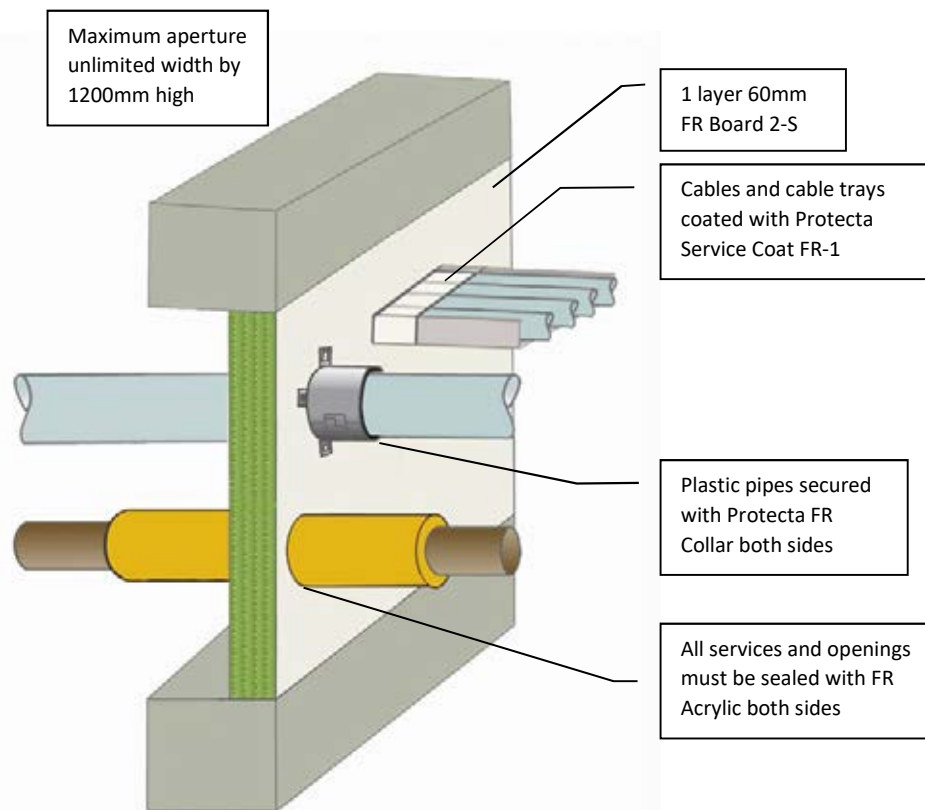
List of services - Page 4 of 4

Type of Services	Size of Services	Pipe wall thicknesses	Pipe Insulation	Pipe config	Pipe Wraps
Rehau Raupiano Plus pipes	≤ Ø50mm per pipe	-	-	U/U	2 layers of 50mm wide both sides
	≤ Ø110mm per pipe	-	-	U/C	2 layers of 50mm wide both sides
	Ø125mm per pipe	-	-	U/C	4 layers of 50mm wide both sides
	Ø160mm per pipe	-	-	U/C	6 layers of 50mm wide both sides
Wavin SiTech pipes	≤ Ø50mm per pipe	-	-	U/U	2 layers of 50mm wide both sides
	≤ Ø110mm per pipe	-	-	U/C	2 layers of 50mm wide both sides
Conduits of PVC-U & PVC-C pipes	≤ Ø110mm w/cables ≤ Ø14mm	2.7-6.6mm	-	U/C	2 layers of 50mm wide both sides
Conduits of PE, ABS & SAN+PVC pipes	≤ Ø110mm w/cables ≤ Ø14mm	4.2-10.0mm	-	U/C	2 layers of 50mm wide both sides
Conduits of PP pipe	≤ Ø110mm w/cables ≤ Ø14mm	2.7-15.1mm	-	U/C	2 layers of 50mm wide both sides
Ventilation ducts	≤ Ø400mm	-	≥ 30mm thick x 20cm long stonewool mat ≥80kg/m <sup>3</sup> both sides	-	Protecta FR Damper
	≤ Ø1250mm	-	≥ 30mm thick x 50cm long stonewool mat ≥80kg/m <sup>3</sup> both sides	-	Protecta FR Damper
	≤ 1200mm high x 1700mm w	-	≥ 30mm thick x 50cm long stonewool mat ≥80kg/m <sup>3</sup> both sides	-	Protecta FR Damper



Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Protecta® FR Coating and Protecta® FR Acrylic are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. The board can be positioned to either side of the construction or anywhere in between.
4. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
5. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
6. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.

**MIXED SERVICE APERTURE**

Fire Classification **EI 60**  
Sound Reduction **29 dB**

Installation details - Page 1 of 2

<b>Products</b>	Protecta FR Board Protecta FR Acrylic Protecta FR Collar Protecta ServiceCoat FR-1
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$

**Services**

1. Cables, cable trays and ladders
  2. Steel pipes
  3. Copper pipes
  4. Alupex pipes
  5. Plastic pipes
- For full specification see page 2.

**Indoor air comfort test results**

- French A+ – Complies
- BREEM-NOR – Complies
- DIBt – Complies
- M1 Protocol – Complies

**Durability**

Y<sub>1</sub> - Intended for use at temperatures below 0°C with exposure to UV and humidity but no exposure to rain. Includes lower classes Y<sub>2</sub>, Z<sub>1</sub> and Z<sub>2</sub>.



ETA 13/0673 & 18/0855



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Scale:  
**NTS**

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K.B. 16/3/19

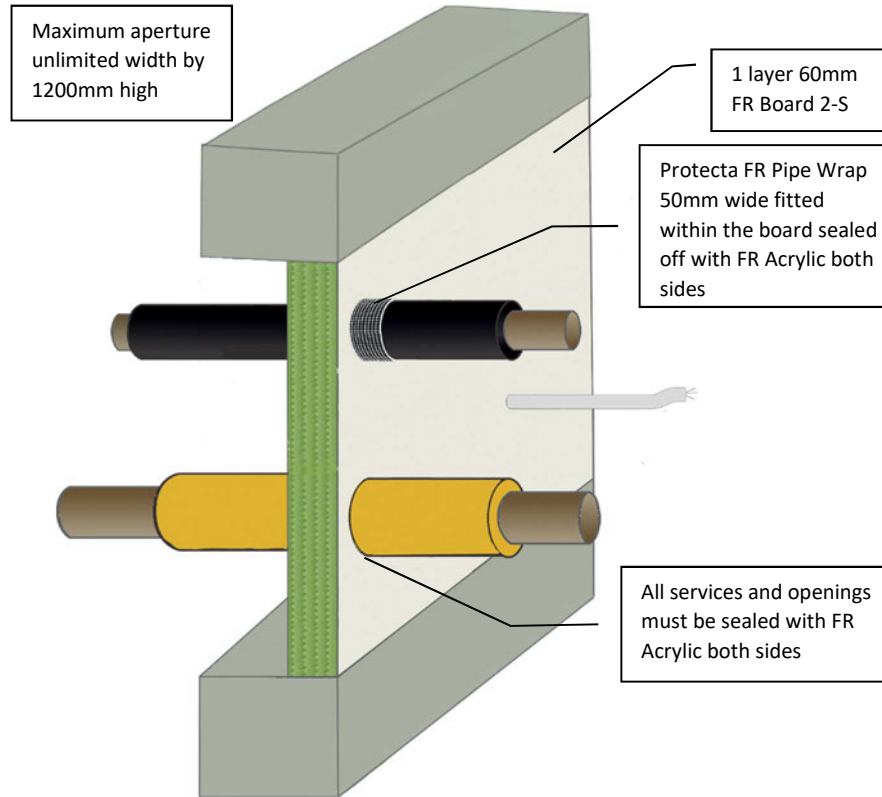
**MIXED SERVICE APERTURE**Fire Classification **EI 60**Sound Reduction **29 dB**

List of services - Page 2 of 2

Type of Services	Size of Services	Pipe wall thicknesses	Pipe Insulation	Pipe config	Collars or Coat Back
Cables	≤ Ø21mm per cable	-	-	-	None
Cables single or bundled, with or without perforated cable trays and ladders	≤ Ø80mm per cable	-	-	-	150mm each side with 300µ WFT Protecta Service Coat FR-1
Steel pipes	≤ Ø324mm per pipe	-	20 - 30mm thick continuous stone wool ≥ 80kg/m <sup>3</sup>	C/U	-
	≤ Ø40mm per pipe	-	≥ 20mm thick x 100cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/U	-
	≤ Ø219mm per pipe	-	≥ 30mm thick x 100cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/U	-
Copper pipes	≤ Ø54mm per pipe	-	≥ 20mm thick x 100cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/U	-
Alupex pipes	≤ Ø75mm per pipe	-	≥ 30mm thick x 60cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/C	-
PVC-U and PVC-C pipes	≤ Ø110mm per pipe	1.9 – 6.6mm	-	U/C	Protecta FR Collar 50mm high ≤ Ø110mm with pig tail fixings
PE, ABS and SAN+PVC pipes	≤ Ø110mm per pipe	3.0 – 10.0mm	-	C/C	

Installation Instructions

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Protecta® FR Coating and Protecta® FR Acrylic are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. The board can be positioned to either side of the construction or anywhere in between.
4. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
5. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
6. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.

**MIXED SERVICE APERTURE**

Fire Classification **E 120**

Sound Reduction **29 dB**

Installation details - Page 1 of 2

<b>Products</b>	Protecta FR Board Protecta FR Acrylic Protecta FR Pipe Wrap
<b>Construction</b>	Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$

**Services**

1. Cables
2. Steel pipes
3. Copper pipes
4. Alupex pipes

For full specification see page 2.

**Indoor air comfort test results**

- French A+ – Complies
- BREEAM-NOR – Complies
- DIBt – Complies
- M1 Protocol – Complies

**Durability**

Y<sub>1</sub> - Intended for use at temperatures below 0°C with exposure to UV and humidity but no exposure to rain. Includes lower classes Y<sub>2</sub>, Z<sub>1</sub> and Z<sub>2</sub>.



ETA 13/0673 & 18/0855



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For all technical details on the products specified please refer to the technical data sheets that can be found on <http://www.protecta.eu>

Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB, United Kingdom  
Tel: +44 (0) 1484 421 036

Scale:  
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K.B. 7/4/19

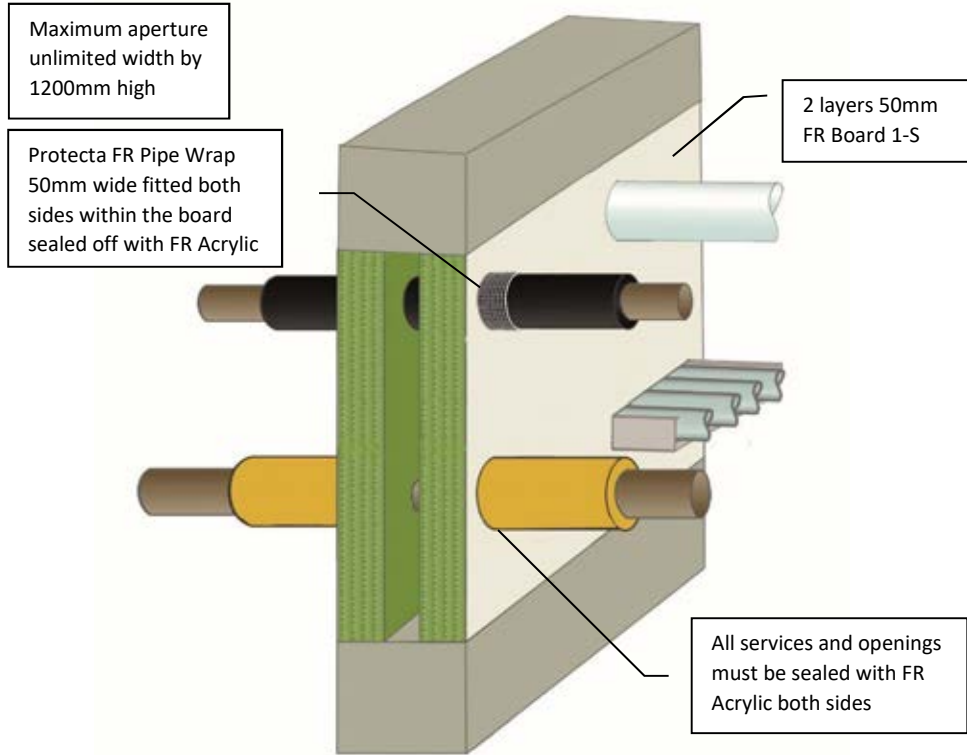
**MIXED SERVICE APERTURE**Fire Classification **E 120**Sound Reduction **29 dB**

List of services - Page 2 of 2

Type of Services	Size of Services	Pipe wall thicknesses	Pipe Insulation	Pipe config	Pipe Wraps
Cables	≤ Ø21mm per cable	-	-	-	None
Steel pipes	≤ Ø165mm per pipe	-	9 - 25mm thick continuous elastomeric or PE	C/U	1 layer of 50mm wide
	≤ Ø324mm per pipe	-	30mm thick continuous stone wool ≥ 80kg/m <sup>3</sup>	C/U	-
	≤ Ø40mm per pipe	-	≥ 20mm thick x 100cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/U	-
	≤ Ø219mm per pipe	-	≥ 30mm thick x 100cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/U	-
Copper pipes	≤ Ø54mm per pipe	-	≥ 20mm thick x 100cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/U	-
Alupex pipes	≤ Ø75mm per pipe	-	≥ 30mm thick x 60cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/C	-

**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Protecta® FR Coating and Protecta® FR Acrylic are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. The boards should be flush with the surface of the construction on both sides to maximize the fire resistance.
4. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
5. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
6. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.



**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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For all technical details on the products specified please refer to the technical data sheets that can be found on <http://www.protecta.eu>

Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB, United Kingdom  
Tel: +44 (0) 1484 421 036

**MIXED SERVICE APERTURE**

Fire Classification **EI 60**  
Sound Reduction **52 dB**

Installation details - Page 1 of 4

<b>Products</b>	Protecta FR Board Protecta FR Acrylic Protecta FR Pipe Wrap
<b>Construction</b>	Minimum wall thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a density of $\geq 650 \text{ kg/m}^3$

- Services**
1. Cables, with or without cable trays
  2. Steel pipes
  3. Copper pipes
  4. Alupex pipes
  5. Plastic pipes
  6. Composite pipes
  7. Conduits
  8. Ventilation ducts

For full specification see pages 2 - 4.

- Indoor air comfort test results**
- French A+ – Complies
  - BREEAM-NOR – Complies
  - DIBt – Complies
  - M1 Protocol – Complies

**Durability**

Y<sub>1</sub> - Intended for use at temperatures below 0°C with exposure to UV and humidity but no exposure to rain. Includes lower classes Y<sub>2</sub>, Z<sub>1</sub> and Z<sub>2</sub>.

<b>Scale:</b> <b>NTS</b>	<b>Drawn by &amp; date:</b> K.B. 16/3/19
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**MIXED SERVICE APERTURE**Fire Classification **EI 60**Sound Reduction **52 dB**

List of services - Page 2 of 4

Type of Services	Size of Services	Pipe wall thicknesses	Pipe Insulation	Pipe config	Pipe Wraps
Cables, single or bundled, with or w/o trays	≤ Ø80mm per cable	-	-	-	-
Unsheathed cables/wires, with or w/o trays	≤ 185mm <sup>2</sup> per wire	-	-	-	-
Steel or PVC conduits, with or w/o trays	≤ Ø16mm per conduit	-	-	C/U	-
Steel pipes	≤ Ø22mm per pipe	-	None	C/U	-
	≤ Ø40mm per pipe	-	13mm thick continuous elastomeric or PE	U/U	1 layer of 50mm wide both sides
	≤ Ø165mm per pipe	-	13 - 32mm thick continuous elastomeric or PE	U/U	2 layers of 50mm wide both sides
	≤ Ø324mm per pipe	-	32 - 50mm thick continuous elastomeric or PE	C/U	3 layers of 50mm wide both sides
	≤ Ø324mm per pipe	-	20 - 80mm thick continuous stone wool ≥ 80kg/m <sup>3</sup>	C/U	-
	≤ Ø40mm per pipe	-	≥ 20mm thick x 500mm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/U	-
	≤ Ø219mm per pipe	-	≥ 30mm thick x 500mm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/U	-
Copper pipes	≤ Ø6mm per pipe	-	None	C/C	-
	≤ Ø54mm per pipe	-	9 - 25mm thick continuous elastomeric or PE	C/C	2 layers of 50mm wide both sides
	≤ Ø54mm per pipe	-	≥ 20mm thick x 500mm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/C	-
Alupex pipes	≤ Ø20mm per pipe	-	None	C/C	-
	≤ Ø75mm per pipe	-	9 - 25mm thick continuous elastomeric or PE	C/C	2 layers of 50mm wide both sides
	≤ Ø75mm per pipe	-	≥ 20mm thick x 500mm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/C	-
PVC-U & PVC-C pipes	≤ Ø32mm per pipe	1.0-2.4mm	-	U/C	None
	≤ Ø40mm per pipe	1.9-3.0mm	-	U/U	1 layer of 50mm wide both sides
	≤ Ø110mm per pipe	2.7-6.6mm	-	U/C	2 layers of 50mm wide both sides
	≤ Ø125mm per pipe	3.7-7.4mm	-	U/C	3 layers of 50mm wide both sides
	≤ Ø160mm per pipe	9.5mm	-	U/C	4 layers of 50mm wide both sides
	≤ Ø315mm per pipe	7.7-12.1mm	-	C/C	10 layers of 50mm wide both sides
	≤ Ø400mm per pipe	9.8-15.3mm	-	C/C	16 layers of 50mm wide both sides

**MIXED SERVICE APERTURE**Fire Classification **EI 60**Sound Reduction **52 dB**

List of services - Page 3 of 4

Type of Services	Size of Services	Pipe wall thicknesses	Pipe Insulation	Pipe config	Pipe Wraps
PE, ABS and SAN+PVC pipes	≤ Ø32mm per pipe	2.0-3.0mm	-	U/C	None
	≤ Ø40mm per pipe	2.4-3.7mm	-	U/U	1 layer of 50mm wide both sides
	≤ Ø110mm per pipe	4.2-10.0mm	-	U/C	2 layers of 50mm wide both sides
	≤ Ø125mm per pipe	4.8-12.0mm	-	U/C	3 layers of 50mm wide both sides
	≤ Ø160mm per pipe	14.6mm	-	U/C	4 layers of 50mm wide both sides
PP pipes	≤ Ø32mm per pipe	1.8-2.2mm	-	U/C	None
	≤ Ø40mm per pipe	1.8-5.5mm	-	U/U	1 layer of 50mm wide both sides
	≤ Ø110mm per pipe	2.7-15.1mm	-	U/U	2 layers of 50mm wide both sides
	≤ Ø125mm per pipe	3.1-17.1mm	-	U/C	3 layers of 50mm wide both sides
	≤ Ø160mm per pipe	21.9mm	-	U/C	4 layers of 50mm wide both sides
PEX pipe-in-pipes	≤ Ø25mm per pipe	-	-	C/C	None
	≤ Ø54mm per pipe	-	-	C/C	2 layers of 50mm wide both sides
	≤ Ø25mm in bundles ≤ Ø50mm	-	-	C/C	2 layers of 50mm wide both sides
Aquatherm Green SDR9 pipes	Ø32mm per pipe	-	-	C/C	1 layer of 50mm wide both sides
	≤ Ø110mm per pipe	-	-	C/C	2 layers of 50mm wide both sides
BluePower pipes	≤ Ø50mm per pipe	-	-	U/U	2 layers of 50mm wide both sides
	≤ Ø110mm per pipe	-	-	C/U	2 layers of 50mm wide both sides
Geberit Silent-PP pipes	≤ Ø50mm per pipe	-	-	U/U	2 layers of 50mm wide both sides
	≤ Ø110mm per pipe	-	-	U/C	2 layers of 50mm wide both sides
Polo-Kal NG pipes	≤ Ø50mm per pipe	-	-	U/U	2 layers of 50mm wide both sides
	≤ Ø110mm per pipe	-	-	U/C	2 layers of 50mm wide both sides
	Ø125mm per pipe	-	-	U/C	4 layers of 50mm wide both sides
	Ø160mm per pipe	-	-	U/C	6 layers of 50mm wide both sides

**MIXED SERVICE APERTURE**Fire Classification **EI 60**Sound Reduction **52 dB**

List of services - Page 4 of 4

Type of Services	Size of Services	Pipe wall thicknesses	Pipe Insulation	Pipe config	Pipe Wraps
Rehau Raupiano Plus pipes	≤ Ø50mm per pipe	-	-	U/U	2 layers of 50mm wide both sides
	≤ Ø110mm per pipe	-	-	U/C	2 layers of 50mm wide both sides
	Ø125mm per pipe	-	-	U/C	4 layers of 50mm wide both sides
	Ø160mm per pipe	-	-	U/C	6 layers of 50mm wide both sides
Wavin SiTech pipes	≤ Ø50mm per pipe	-	-	U/U	2 layers of 50mm wide both sides
	≤ Ø110mm per pipe	-	-	U/C	2 layers of 50mm wide both sides
Conduits of PVC-U & PVC-C pipes	≤ Ø110mm w/cables ≤ Ø14mm	2.7-6.6mm	-	U/C	2 layers of 50mm wide both sides
Conduits of PE, ABS & SAN+PVC pipes	≤ Ø110mm w/cables ≤ Ø14mm	4.2-10.0mm	-	U/C	2 layers of 50mm wide both sides
Conduits of PP pipe	≤ Ø110mm w/cables ≤ Ø14mm	2.7-15.1mm	-	U/C	2 layers of 50mm wide both sides
Ventilation ducts	≤ Ø400mm	-	≥ 30mm thick x 20cm long stonewool mat ≥80kg/m <sup>3</sup> both sides	-	Protecta FR Damper
	≤ Ø1250mm	-	≥ 30mm thick x 50cm long stonewool mat ≥80kg/m <sup>3</sup> both sides	-	Protecta FR Damper
	≤ 1200mm high x 1700mm w	-	≥ 30mm thick x 50cm long stonewool mat ≥80kg/m <sup>3</sup> both sides	-	Protecta FR Damper



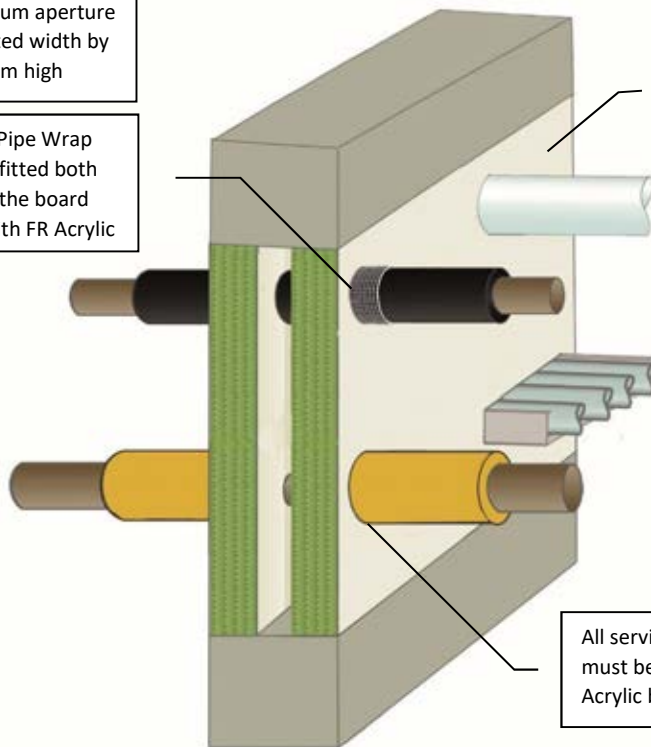
**Installation Instructions**

1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Protecta® FR Coating and Protecta® FR Acrylic are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. The boards should be flush with the surface of the construction on both sides to maximize the fire resistance. If this is not possible, there should be an air gap of at least 30mm between the boards.
4. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
5. All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on both sides.
6. Protecta® FR Board can be over-painted with most emulsion or alkyd (gloss) paints.

Maximum aperture unlimited width by 1200mm high

Protecta FR Pipe Wrap 50mm wide fitted both sides within the board sealed off with FR Acrylic

2 layers 60mm FR Board 2-S



All services and openings must be sealed with FR Acrylic both sides

**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Protecta® FR Board seal do not require a minimum separation, except pipes where pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.

**MIXED SERVICE APERTURE**

Fire Classification **EI 120**  
Sound Reduction **52 dB**

Installation details - Page 1 of 3

<b>Products</b>	Protecta FR Board Protecta FR Acrylic Protecta FR Pipe Wrap
<b>Construction</b>	Minimum wall thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a density of ≥ 650 kg/m <sup>3</sup>

**Services**

1. Cables, with or without cable trays
2. Steel pipes
3. Copper pipes
4. Alupex pipes
5. Plastic pipes
6. Composite pipes
7. Conduits
8. Ventilation ducts

For full specification see pages 2 - 3.

**Indoor air comfort test results**

- French A+ – Complies
- BREEAM-NOR – Complies
- DIBt – Complies
- M1 Protocol – Complies

**Durability**

Y<sub>1</sub> - Intended for use at temperatures below 0°C with exposure to UV and humidity but no exposure to rain. Includes lower classes Y<sub>2</sub>, Z<sub>1</sub> and Z<sub>2</sub>.



ETA 13/0673 & 18/0855



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Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB, United Kingdom  
Tel: +44 (0) 1484 421 036

Scale:  
**NTS**

Drawn by & date:  
K.B. 16/3/19

**MIXED SERVICE APERTURE**Fire Classification **EI 120**Sound Reduction **52 dB**

List of services - Page 2 of 3

Type of Services	Size of Services	Pipe wall thicknesses	Pipe Insulation	Pipe config	Pipe Wraps
Cables, single or bundled	≤ Ø21mm per cable	-	-	-	-
Cables in tied bundles and conduits on trays	≤ Ø21mm cables in bundles ≤ Ø100mm	-	-	-	-
	≤ Ø16mm PVC conduits	-	-	C/U	-
	≤ 200 mm ladders	-	-	-	-
	≤ 500 mm non perforated trays	-	-	-	-
Steel pipes	≤ Ø40mm per pipe	-	13mm thick continuous elastomeric or PE	U/U	1 layer of 50mm wide both sides
	≤ Ø324mm per pipe	-	20 - 80mm thick continuous stone wool ≥ 80kg/m <sup>3</sup>	C/U	-
	≤ Ø40mm per pipe	-	≥ 20mm thick x 50cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/U	-
	≤ Ø219mm per pipe	-	≥ 30mm thick x 100cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/U	-
Copper pipes	≤ Ø12mm per pipe	-	9mm thick continuous elastomeric or PE	C/C	2 layers of 50mm wide both sides
	≤ Ø54mm per pipe	-	≥ 20mm thick x 50cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/C	-
	≤ Ø54mm per pipe	-	≥ 20mm thick x 100cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/U	-
Alupex pipes	≤ Ø20mm per pipe	-	None	C/C	-
	≤ Ø75mm per pipe	-	9 - 25mm thick continuous elastomeric or PE	C/C	2 layers of 50mm wide both sides
	≤ Ø16mm per pipe	-	≥ 20mm thick x 60cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	U/C	-
	≤ Ø75mm per pipe	-	≥ 30mm thick x 60cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/C	-
PVC-U & PVC-C pipes	≤ Ø40mm per pipe	1.9-3.0mm	-	U/U	1 layer of 50mm wide both sides
	≤ Ø110mm per pipe	2.7-6.6mm	-	U/C	2 layers of 50mm wide both sides
	≤ Ø125mm per pipe	4.7-7.4mm	-	U/C	4 layers of 50mm wide both sides
	≤ Ø160mm per pipe	4.0-9.5mm	-	U/C	6 layers of 50mm wide both sides
	≤ Ø200mm per pipe	5.0-10.2mm	-	C/C	10 layers of 75mm wide both sides
	≤ Ø250mm per pipe	6.0-11.0mm	-	C/C	10 layers of 75mm wide both sides
	≤ Ø315mm per pipe	7.7-12.1mm	-	C/C	10 layers of 75mm wide both sides
	≤ Ø400mm per pipe	9.8-15.3mm	-	C/C	16 layers of 75mm wide both sides

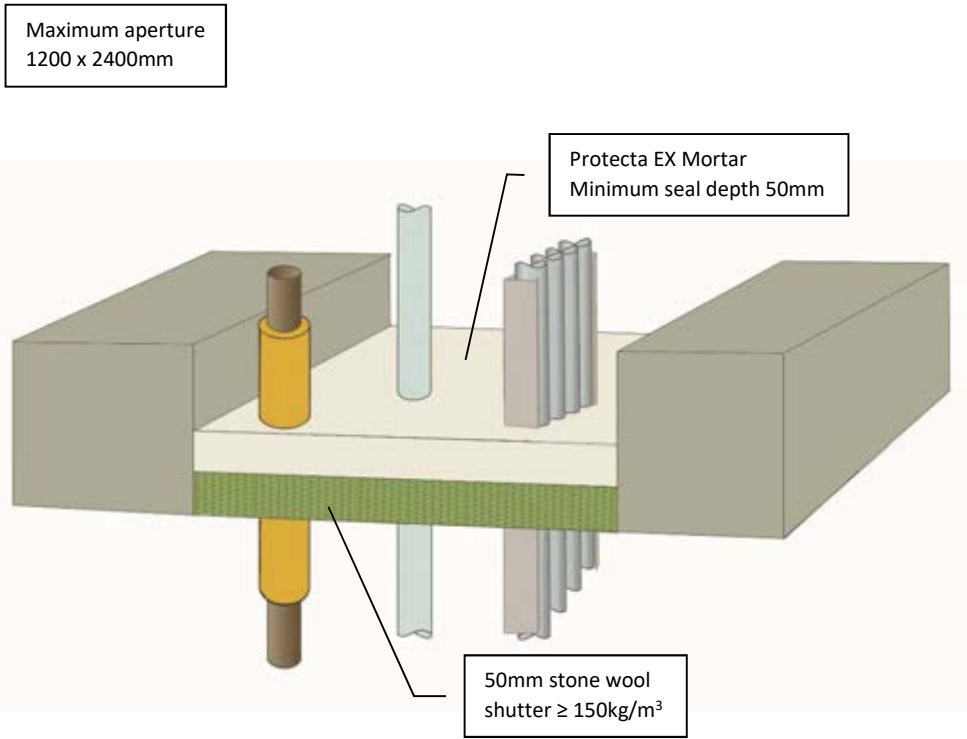
**MIXED SERVICE APERTURE**Fire Classification **EI 120**Sound Reduction **52 dB**

List of services - Page 3 of 3

Type of Services	Size of Services	Pipe wall thicknesses	Pipe Insulation	Pipe config	Pipe Wraps
PE, ABS and SAN+PVC pipes	≤ Ø40mm per pipe	2.4-3.7mm	-	U/U	1 layer of 50mm wide both sides
	≤ Ø40mm per pipe	3.8-4.6mm	-	U/C	1 layer of 50mm wide both sides
	≤ Ø110mm per pipe	3.4-10.0mm	-	U/C	2 layers of 50mm wide both sides
	≤ Ø125mm per pipe	3.9-7.4mm	-	U/C	4 layers of 50mm wide both sides
	≤ Ø160mm per pipe	4.9-9.5mm	-	U/C	6 layers of 50mm wide both sides
PP pipes	≤ Ø40mm per pipe	1.8-5.5mm	-	U/U	1 layer of 50mm wide both sides
	≤ Ø110mm per pipe	2.7-10.0mm	-	C/C	2 layers of 50mm wide both sides
	≤ Ø125mm per pipe	3.1-11.4mm	-	C/C	4 layers of 50mm wide both sides
	≤ Ø160mm per pipe	4.9-14.6mm	-	C/C	6 layers of 50mm wide both sides
PEX pipe-in-pipes	≤ Ø54mm per pipe	-	-	C/C	2 layers of 50mm wide both sides
Geberit Silent-PP pipes	≤ Ø50mm per pipe	-	-	U/U	2 layers of 50mm wide both sides
	≤ Ø110mm per pipe	-	-	U/C	2 layers of 50mm wide both sides
Polo-Kal NG pipes	≤ Ø50mm per pipe	-	-	U/U	2 layers of 50mm wide both sides
	≤ Ø110mm per pipe	-	-	U/C	2 layers of 50mm wide both sides
	Ø125mm per pipe	-	-	U/C	4 layers of 50mm wide both sides
	Ø160mm per pipe	-	-	U/C	6 layers of 50mm wide both sides
Rehau Raupiano Plus pipes	≤ Ø50mm per pipe	-	-	U/U	2 layers of 50mm wide both sides
	≤ Ø110mm per pipe	-	-	U/C	2 layers of 50mm wide both sides
	Ø125mm per pipe	-	-	U/C	4 layers of 50mm wide both sides
	Ø160mm per pipe	-	-	U/C	6 layers of 50mm wide both sides
Ventilation ducts	≤ Ø400mm	-	≥ 30mm thick x 20cm long stonewool mat ≥80kg/m <sup>3</sup> both sides	-	Protecta FR Damper
	≤ 600mm high x 1000mm wide	-	≥ 30mm thick x 50cm long stonewool mat ≥80kg/m <sup>3</sup> both sides	-	Protecta FR Damper

### Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. Bare metal passing through the seal must be protected against corrosion using a suitable primer/protection system.
3. The seal can be positioned to either side of the construction or anywhere in between.
4. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
5. Install a stone wool shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal – any small openings should be sealed with Protecta® FR Acrylic
6. Pour clean water into a suitable mixing vessel and pour enough mortar to obtain the required consistency. Mix well to avoid lumps. Always add the mortar to the water, do not reverse this mixing process.
7. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



### Minimum separations and limitations

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.

### MIXED SERVICE APERTURE

Fire Classification **EI 60**  
Sound Reduction **48 dB**

Installation details - Page 1 of 2

<b>Products</b>	Protecta EX Mortar Stone wool shutter
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>

### Services

1. Cables and cable trays
2. Steel pipes
3. Copper pipes
4. Alupex pipes
5. Plastic pipes

For full specification see page 2.

### Indoor air comfort test results

- EMICODE EC 1<sup>PLUS</sup> – Complies
- BREEAM-NOR – Complies
- DIBt – Complies
- LEED – Complies

### Durability

Z<sub>2</sub> - Intended for use in internal conditions with humidity classes other than Z<sub>1</sub>, excluding temperatures below 0 °C.



ETA 13/0672 & 18/0855



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For all technical details on the products specified please refer to the technical data sheets that can be found on <http://www.protecta.eu>

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Tel: +44 (0) 1484 421 036

Scale:  
**NTS**

Drawn by & date:  
K.B. 17/3/19

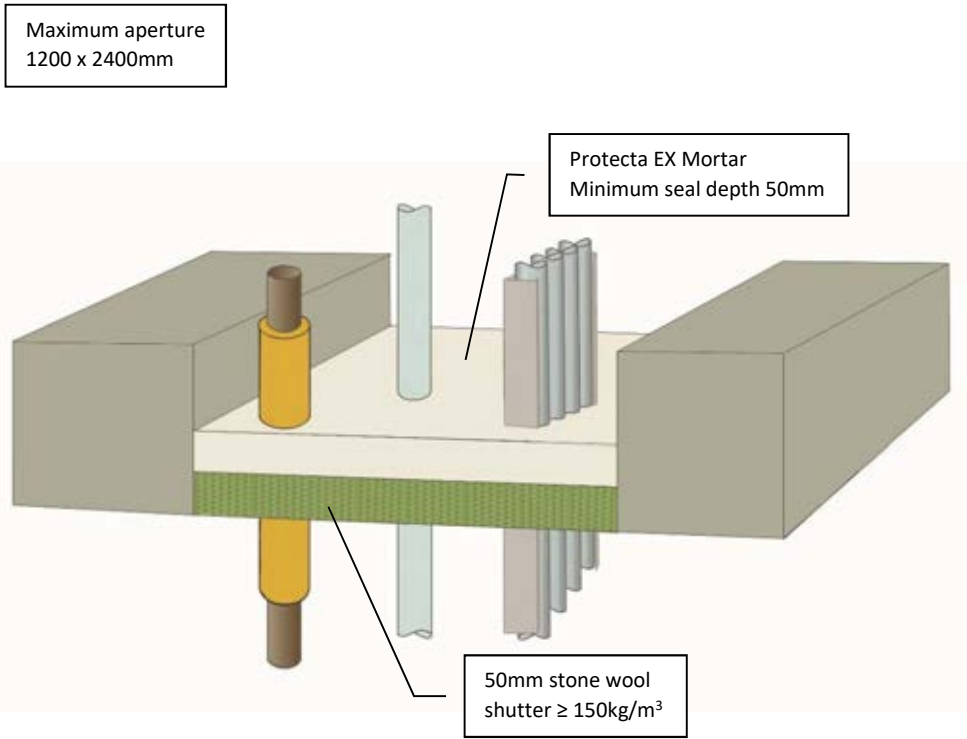
**MIXED SERVICE APERTURE**Fire Classification **EI 60**Sound Reduction **48 dB**

List of services - Page 2 of 2

Type of Services	Size of Services	Pipe wall thicknesses	Pipe Insulation	Pipe config	Pipe Wraps
Cables, with or without trays or ladders	≤ Ø21mm cables single or bundled	-	-	-	-
	≤ Ø16mm PVC conduits	-	-	C/U	-
	≤ Ø17mm unsheathed cables/wires	-	-	-	-
Steel pipes	≤ Ø16mm per pipe	-	None	C/U	-
	≤ Ø324mm per pipe	-	20 - 80mm thick continuous stone wool ≥ 80kg/m <sup>3</sup>	C/U	-
	≤ Ø40mm per pipe	-	≥ 20mm thick x 100cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/U	-
	≤ Ø219mm per pipe	-	≥ 30mm thick x 100cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/U	-
Copper pipes	Ø6mm per pipe	-	None	C/C	-
	≤ Ø54mm per pipe	-	20 - 80mm thick continuous stone wool ≥ 80kg/m <sup>3</sup>	C/C	-
	≤ Ø54mm per pipe	-	≥ 20mm thick x 100cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/C	-
Alupex pipes	≤ Ø20mm per pipe	-	None	C/C	-
	≤ Ø75mm per pipe	-	≥ 20mm thick x 50cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/C	-
PVC-U and PVC-C pipes	≤ Ø40mm per pipe	1.6-3.0mm	-	U/C	None
PEX pipe-in-pipes	≤ Ø25mm per pipe	-	-	C/C	None

Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. Bare metal passing through the seal must be protected against corrosion using a suitable primer/protection system.
3. The seal can be positioned to either side of the construction or anywhere in between.
4. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
5. Install a stone wool shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal – any small openings should be sealed with Protecta® FR Acrylic
6. Pour clean water into a suitable mixing vessel and pour enough mortar to obtain the required consistency. Mix well to avoid lumps. Always add the mortar to the water, do not reverse this mixing process.
7. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



**Minimum separations and limitations**  
 An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.



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 Tel: +44 (0) 1484 421 036

**MIXED SERVICE APERTURE**

Fire Classification **E 120**  
 Sound Reduction **48 dB**

Installation details - Page 1 of 2

<b>Products</b>	Protecta EX Mortar Stone wool shutter
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>

- Services**
1. Cables and cable trays
  2. Steel pipes
  3. Copper pipes
  4. Alupex pipes
  5. Plastic pipes

For full specification see page 2.

**Indoor air comfort test results**

- EMICODE EC 1<sup>PLUS</sup> – Complies
- BREEAM-NOR – Complies
- DIBt – Complies
- LEED – Complies

**Durability**

Z<sub>2</sub> - Intended for use in internal conditions with humidity classes other than Z<sub>1</sub>, excluding temperatures below 0 °C.

Scale: <b>NTS</b>	Drawn by & date: K.B. 17/3/19
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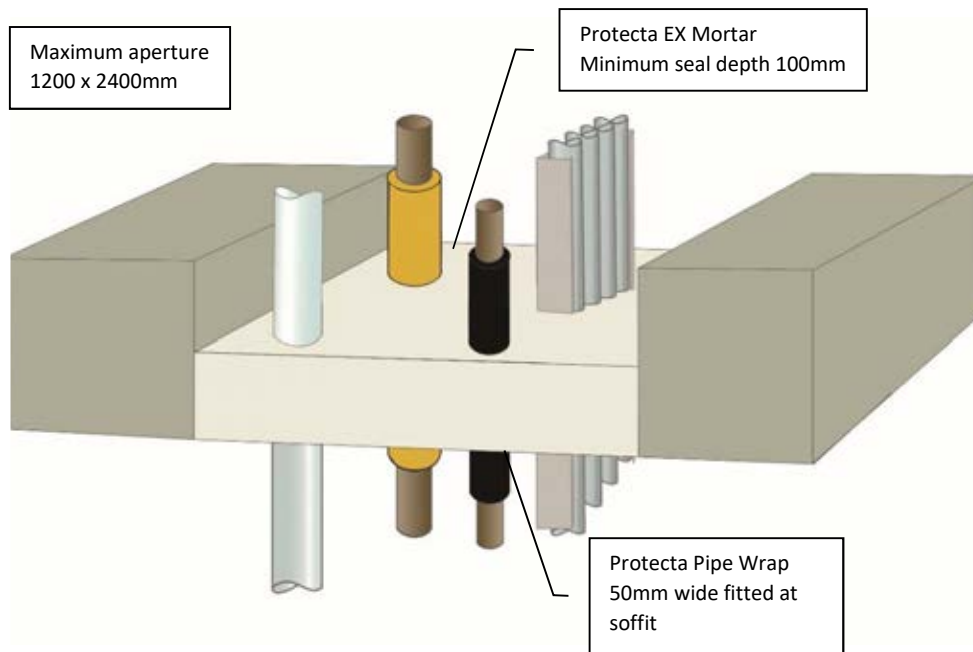
**MIXED SERVICE APERTURE**Fire Classification **E 120**Sound Reduction **48 dB**

List of services - Page 2 of 2

Type of Services	Size of Services	Pipe wall thicknesses	Pipe Insulation	Pipe config	Pipe Wraps
Cables, with or without trays	≤ Ø21mm cables single or bundled	-	-	-	-
	≤ Ø16mm PVC conduits	-	-	C/U	-
	≤ Ø24mm unsheathed cables/wires	-	-	-	-
Steel pipes	≤ Ø16mm per pipe	-	None	C/U	-
	≤ Ø324mm per pipe	-	20 - 80mm thick continuous stone wool ≥ 80kg/m <sup>3</sup>	C/U	-
	≤ Ø40mm per pipe	-	≥ 20mm thick x 100cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/U	-
	≤ Ø219mm per pipe	-	≥ 30mm thick x 100cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/U	-
Copper pipes	≤ Ø15mm per pipe	-	None	C/C	-
	≤ Ø54mm per pipe	-	20 - 80mm thick continuous stone wool ≥ 80kg/m <sup>3</sup>	C/C	-
	≤ Ø54mm per pipe	-	≥ 20mm thick x 100cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/C	-
Alupex pipes	≤ Ø20mm per pipe	-	None	C/C	-
	≤ Ø75mm per pipe	-	≥ 20mm thick x 50cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/C	-
PVC-U and PVC-C pipes	≤ Ø40mm per pipe	1.6-3.0mm	-	U/C	None
PEX pipe-in-pipes	≤ Ø25mm per pipe	-	-	C/C	None

### Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. Bare metal passing through the seal must be protected against corrosion using a suitable primer/protection system.
3. The seal can be positioned to either side of the construction or anywhere in between.
4. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
5. Install a shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal.
6. Pour clean water into a suitable mixing vessel and pour enough mortar to obtain the required consistency. Mix well to avoid lumps. Always add the mortar to the water, do not reverse this mixing process.
7. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



#### Loadbearing Properties

Soft body impact, serviceability 500Nm. Soft body impact, safety in use 700Nm. Hard body impact serviceability 6Nm. Hard body impact, safety in use 10Nm. Concentrated load to 15kN on size up to 1500mm x1000mm (no failure), 4.85kN on sizes up to 1200mm x 2400mm.

#### Minimum separations and limitations

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.

### MIXED SERVICE APERTURE

Fire Classification **EI 60**  
Sound Reduction **48 dB**

Installation details - Page 1 of 4

<b>Products</b>	Protecta EX Mortar Protecta FR Pipe Wrap
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>

#### Services

1. Cables, with or without cable trays
2. Steel pipes
3. Copper pipes
4. Alupex pipes
5. Plastic pipes
6. Composite pipes
7. Conduits
8. Ventilation ducts

For full specification see pages 2 - 4.

#### Indoor air comfort test results

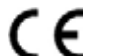
- EMICODE EC 1<sup>PLUS</sup> – Complies
- BREEAM-NOR – Complies
- DIBt – Complies
- LEED – Complies

#### Durability

Z<sub>2</sub> - Intended for use in internal conditions with humidity classes other than Z<sub>1</sub>, excluding temperatures below 0 °C.



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Protecta®

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**MIXED SERVICE APERTURE**Fire Classification **EI 60**Sound Reduction **48 dB**

List of services - Page 2 of 4

Type of Services	Size of Services	Pipe wall thicknesses	Pipe Insulation	Pipe config	Pipe Wraps
Cables, with or without trays or ladders	≤ Ø80mm cables single or bundled	-	-	-	-
	≤ Ø16mm PVC conduits	-	-	C/U	-
	≤ Ø17mm unsheathed cables/wires	-	-	-	-
Steel pipes	≤ Ø16mm per pipe	-	None	C/U	-
	≤ Ø40mm per pipe	-	13mm thick continuous elastomeric or phenolic	C/U	1 layer of 50mm wide soffit side
	≤ Ø40mm per pipe	-	14 - 25mm thick continuous elastomeric or phenolic	C/U	2 layers of 50mm wide soffit side
	≤ Ø165mm per pipe	-	14 - 19mm thick continuous elastomeric or phenolic	C/U	1 layer of 50mm wide soffit side
	≤ Ø324mm per pipe	-	25mm thick continuous elastomeric or phenolic	C/U	2 layers of 50mm wide soffit side
	≤ Ø324mm per pipe	-	26 - 50mm thick continuous elastomeric or phenolic	C/U	3 layers of 50mm wide soffit side
	≤ Ø324mm per pipe	-	20 - 80mm thick continuous stone wool ≥ 80kg/m <sup>3</sup>	C/U	-
	≤ Ø40mm per pipe	-	≥ 20mm thick x 100cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/U	-
Copper pipes	Ø6mm per pipe	-	None	C/C	-
	≤ Ø12mm per pipe	-	9mm thick continuous elastomeric or phenolic	C/C	2 layers of 50mm wide soffit side
	≤ Ø54mm per pipe	-	13 - 25mm thick continuous elastomeric or phenolic	C/C	2 layers of 50mm wide soffit side
	≤ Ø54mm per pipe	-	20 - 80mm thick continuous stone wool ≥ 80kg/m <sup>3</sup>	C/C	-
	≤ Ø54mm per pipe	-	≥ 20mm thick x 100cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/C	-
Alupex pipes	≤ Ø20mm per pipe	-	None	C/C	-
	≤ Ø75mm per pipe	-	9 - 25mm thick continuous elastomeric or phenolic	C/C	2 layers of 50mm wide soffit side
	≤ Ø75mm per pipe	-	≥ 20mm thick x 50cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/C	-

**MIXED SERVICE APERTURE**Fire Classification **EI 60**Sound Reduction **48 dB**

List of services - Page 3 of 4

Type of Services	Size of Services	Pipe wall thicknesses	Pipe Insulation	Pipe config	Pipe Wraps
PVC-U and PVC-C pipes	≤ Ø40mm per pipe	1.6-3.0mm	-	U/C	None
	≤ Ø40mm per pipe	1.8-3.7mm	-	U/U	1 layer of 50mm wide soffit side
	≤ Ø110mm per pipe	1.9-6.6mm	-	U/C	2 layers of 50mm wide soffit side
	≤ Ø125mm per pipe	3.5-7.4mm	-	U/C	4 layers of 50mm wide soffit side
	≤ Ø160mm per pipe	4.5-9.5mm	-	C/C	6 layers of 50mm wide soffit side
	≤ Ø160mm per pipe	9.5mm	-	U/C	6 layers of 50mm wide soffit side
PE, ABS and SAN+PVC pipes	≤ Ø40mm per pipe	1.8-4.4mm	-	U/C	None
	≤ Ø40mm per pipe	2.4-3.7mm	-	U/U	1 layer of 50mm wide soffit side
	≤ Ø110mm per pipe	2.5-10.0mm	-	U/C	2 layers of 50mm wide soffit side
	≤ Ø125mm per pipe	3.9-11.4mm	-	U/C	4 layers of 50mm wide soffit side
	≤ Ø160mm per pipe	4.9-14.6mm	-	U/C	6 layers of 50mm wide soffit side
	≤ Ø250mm per pipe	7.8mm	-	C/C	7 layers of 75mm wide soffit side
PP pipes	≤ Ø40mm per pipe	1.8-4.4mm	-	U/C	None
	≤ Ø40mm per pipe	1.8-5.5mm	-	U/U	1 layer of 50mm wide soffit side
	≤ Ø110mm per pipe	1.9-6.3mm	-	U/C	2 layers of 50mm wide soffit side
	≤ Ø125mm per pipe	3.4-11.4mm	-	U/C	4 layers of 50mm wide soffit side
	≤ Ø160mm per pipe	4.9-14.6mm	-	U/C	6 layers of 50mm wide soffit side
PEX pipe-in-pipes	≤ Ø25mm per pipe	-	-	C/C	None
	≤ Ø54mm per pipe	-	-	C/C	2 layers of 50mm wide soffit side
Aquatherm Green SDR9 pipes	Ø32mm per pipe	-	-	C/C	1 layer of 50mm wide soffit side
	≤ Ø110mm per pipe	-	-	C/C	2 layers of 50mm wide soffit side
Geberit Silent-PP pipes	≤ Ø50mm per pipe	-	-	U/U	2 layers of 50mm wide soffit side
	≤ Ø110mm per pipe	-	-	U/C	2 layers of 50mm wide soffit side

**MIXED SERVICE APERTURE**Fire Classification **EI 60**Sound Reduction **48 dB**

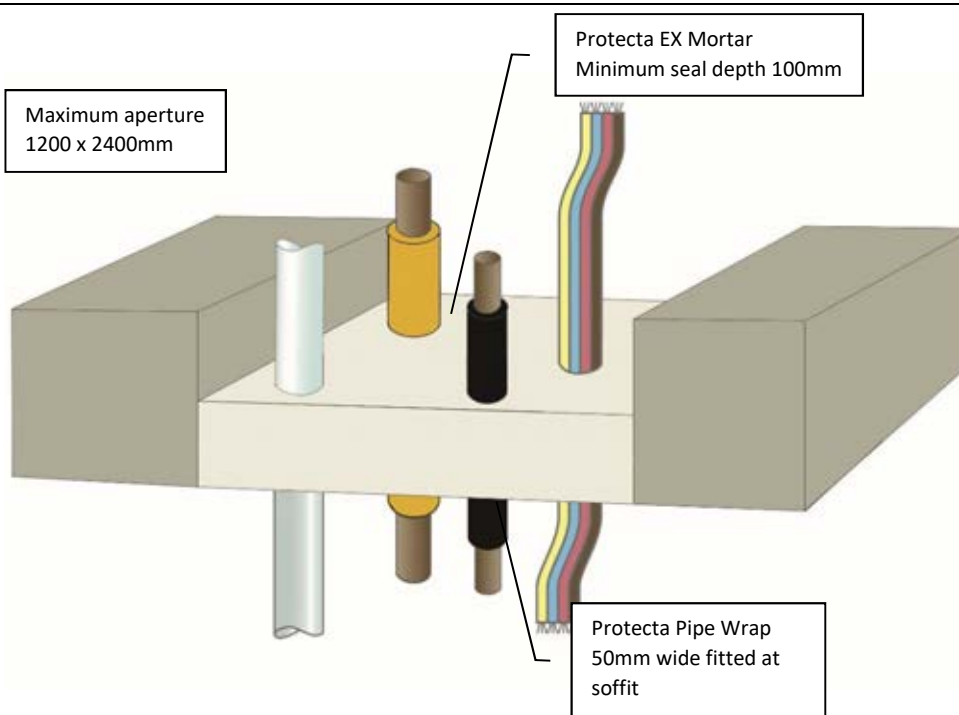
List of services - Page 4 of 4

Type of Services	Size of Services	Pipe wall thicknesses	Pipe Insulation	Pipe config	Pipe Wraps
Polo-Kal NG pipes	≤ Ø110mm per pipe	-	-	U/C	2 layers of 50mm wide soffit side
	Ø125mm per pipe	-	-	U/C	4 layers of 50mm wide soffit side
	Ø160mm per pipe	-	-	U/C	6 layers of 50mm wide soffit side
Rehau Raupiano Plus pipes	≤ Ø50mm per pipe	-	-	U/U	2 layers of 50mm wide soffit side
	≤ Ø110mm per pipe	-	-	U/C	2 layers of 50mm wide soffit side
	Ø125mm per pipe	-	-	U/C	4 layers of 50mm wide soffit side
	Ø160mm per pipe	-	-	U/C	6 layers of 50mm wide soffit side
Wavin SiTech pipes	≤ Ø50mm per pipe	-	-	U/U	2 layers of 50mm wide soffit side
	≤ Ø110mm per pipe	-	-	U/C	2 layers of 50mm wide soffit side
Conduits of PVC-U & PVC-C pipes	≤ Ø110mm w/cables ≤ Ø14mm	2.7-6.6mm	-	U/C	2 layers of 50mm wide soffit side
Conduits of PE, ABS & SAN+PVC pipes	≤ Ø110mm w/cables ≤ Ø14mm	2.7-10.0mm	-	U/C	2 layers of 50mm wide soffit side
Conduits of PP pipe	≤ Ø110mm w/cables ≤ Ø14mm	3.4-6.3mm	-	U/C	2 layers of 50mm wide soffit side
Ventilation ducts	≤ Ø400mm	-	≥ 30mm thick x 15cm long stonewool mat ≥80kg/m <sup>3</sup> top side	-	Protecta FR Damper
	≤ Ø1000mm	-	≥ 30mm thick x 50cm long stonewool mat ≥80kg/m <sup>3</sup> top side	-	Protecta FR Damper
	≤ 1000 x 1000mm	-	≥ 30mm thick x 50cm long stonewool mat ≥80kg/m <sup>3</sup> top side	-	Protecta FR Damper

### Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. Bare metal passing through the seal must be protected against corrosion using a suitable primer/protection system.
3. The seal can be positioned to either side of the construction or anywhere in between.
4. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
5. Install a shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal.
6. Pour clean water into a suitable mixing vessel and pour enough mortar to obtain the required consistency. Mix well to avoid lumps. Always add the mortar to the water, do not reverse this mixing process.
7. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.

Maximum aperture  
1200 x 2400mm



### Loadbearing Properties

Soft body impact, serviceability 500Nm. Soft body impact, safety in use 700Nm. Hard body impact serviceability 6Nm. Hard body impact, safety in use 10Nm. Concentrated load to 15kN on size up to 1500mm x1000mm (no failure), 4.85kN on sizes up to 1200mm x 2400mm.

### Minimum separations and limitations

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.

### MIXED SERVICE APERTURE

Fire Classification **EI 120**  
Sound Reduction **48 dB**

Installation details - Page 1 of 4

<b>Products</b>	Protecta EX Mortar Protecta FR Pipe Wrap
<b>Construction</b>	Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m <sup>3</sup>

### Services

1. Cables
2. Steel pipes
3. Copper pipes
4. Alupex pipes
5. Plastic pipes
6. Composite pipes
7. Conduits
8. Ventilation ducts

For full specification see pages 2 - 4.

### Indoor air comfort test results

- EMICODE EC 1<sup>PLUS</sup> – Complies
- BREEAM-NOR – Complies
- DIBt – Complies
- LEED – Complies

### Durability

Z<sub>2</sub> - Intended for use in internal conditions with humidity classes other than Z<sub>1</sub>, excluding temperatures below 0 °C.



ETA 13/0672 & 18/0855



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Tel: +44 (0) 1484 421 036

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**MIXED SERVICE APERTURE**Fire Classification **EI 120**Sound Reduction **48 dB**

List of services - Page 2 of 4

Type of Services	Size of Services	Pipe wall thicknesses	Pipe Insulation	Pipe config	Pipe Wraps
Cables in tied bundles	≤ Ø21mm cables in bundles ≤ Ø100mm	-	-	-	-
	≤ Ø16mm PVC conduits	-	-	C/U	-
Steel pipes	≤ Ø16mm per pipe	-	None	C/U	-
	≤ Ø40mm per pipe	-	13mm thick continuous elastomeric or phenolic	C/U	1 layer of 50mm wide soffit side
	≤ Ø40mm per pipe	-	14 - 25mm thick continuous elastomeric or phenolic	C/U	2 layers of 50mm wide soffit side
	≤ Ø165mm per pipe	-	14 - 19mm thick continuous elastomeric or phenolic	C/U	1 layer of 50mm wide soffit side
	≤ Ø324mm per pipe	-	25mm thick continuous elastomeric or phenolic	C/U	2 layers of 50mm wide soffit side
	≤ Ø324mm per pipe	-	26 - 50mm thick continuous elastomeric or phenolic	C/U	3 layers of 50mm wide soffit side
	≤ Ø324mm per pipe	-	20 - 80mm thick continuous stone wool ≥ 80kg/m <sup>3</sup>	C/U	-
	≤ Ø40mm per pipe	-	≥ 20mm thick x 100cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/U	-
Copper pipes	≤ Ø219mm per pipe	-	≥ 30mm thick x 100cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/U	-
	Ø6mm per pipe	-	None	C/C	-
	≤ Ø12mm per pipe	-	9mm thick continuous elastomeric or phenolic	C/C	2 layers of 50mm wide soffit side
	≤ Ø54mm per pipe	-	20 - 80mm thick continuous stone wool ≥ 80kg/m <sup>3</sup>	C/C	-
Alupex pipes	≤ Ø54mm per pipe	-	≥ 20mm thick x 100cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/C	-
	≤ Ø20mm per pipe	-	None	C/C	-
	≤ Ø16mm per pipe	-	9mm thick continuous elastomeric or phenolic	C/C	2 layers of 50mm wide soffit side
	≤ Ø75mm per pipe	-	≥ 20mm thick x 50cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/C	-

**MIXED SERVICE APERTURE**Fire Classification **EI 120**Sound Reduction **48 dB**

List of services - Page 3 of 4

Type of Services	Size of Services	Pipe wall thicknesses	Pipe Insulation	Pipe config	Pipe Wraps
PVC-U and PVC-C pipes	≤ Ø40mm per pipe	1.6-3.0mm	-	U/C	None
	≤ Ø40mm per pipe	1.8-3.7mm	-	U/U	1 layer of 50mm wide soffit side
	≤ Ø110mm per pipe	1.9-6.6mm	-	U/C	2 layers of 50mm wide soffit side
	≤ Ø125mm per pipe	3.5-7.4mm	-	U/C	4 layers of 50mm wide soffit side
	≤ Ø160mm per pipe	4.5mm	-	C/C	6 layers of 50mm wide soffit side
PE, ABS and SAN+PVC pipes	≤ Ø40mm per pipe	1.8-4.4mm	-	U/C	None
	≤ Ø40mm per pipe	2.4-3.7mm	-	U/U	1 layer of 50mm wide soffit side
	≤ Ø110mm per pipe	2.5-10.0mm	-	U/C	2 layers of 50mm wide soffit side
	≤ Ø125mm per pipe	3.9-11.4mm	-	U/C	4 layers of 50mm wide soffit side
	≤ Ø160mm per pipe	4.9-14.6mm	-	U/C	6 layers of 50mm wide soffit side
	≤ Ø250mm per pipe	7.8mm	-	C/C	7 layers of 75mm wide soffit side
PP pipes	≤ Ø40mm per pipe	1.8-4.4mm	-	U/C	None
	≤ Ø40mm per pipe	1.8-5.5mm	-	U/U	1 layer of 50mm wide soffit side
	≤ Ø110mm per pipe	1.9-6.3mm	-	U/C	2 layers of 50mm wide soffit side
	≤ Ø125mm per pipe	3.4-11.4mm	-	U/C	4 layers of 50mm wide soffit side
	≤ Ø160mm per pipe	4.9-14.6mm	-	U/C	6 layers of 50mm wide soffit side
PEX pipe-in-pipes	≤ Ø25mm per pipe	-	-	C/C	None
	≤ Ø54mm per pipe	-	-	C/C	2 layers of 50mm wide soffit side
Aquatherm Green SDR9 pipes	Ø32mm per pipe	-	-	C/C	1 layer of 50mm wide soffit side
	≤ Ø110mm per pipe	-	-	C/C	2 layers of 50mm wide soffit side
Geberit Silent-PP pipes	≤ Ø50mm per pipe	-	-	U/U	2 layers of 50mm wide soffit side
	≤ Ø110mm per pipe	-	-	U/C	2 layers of 50mm wide soffit side

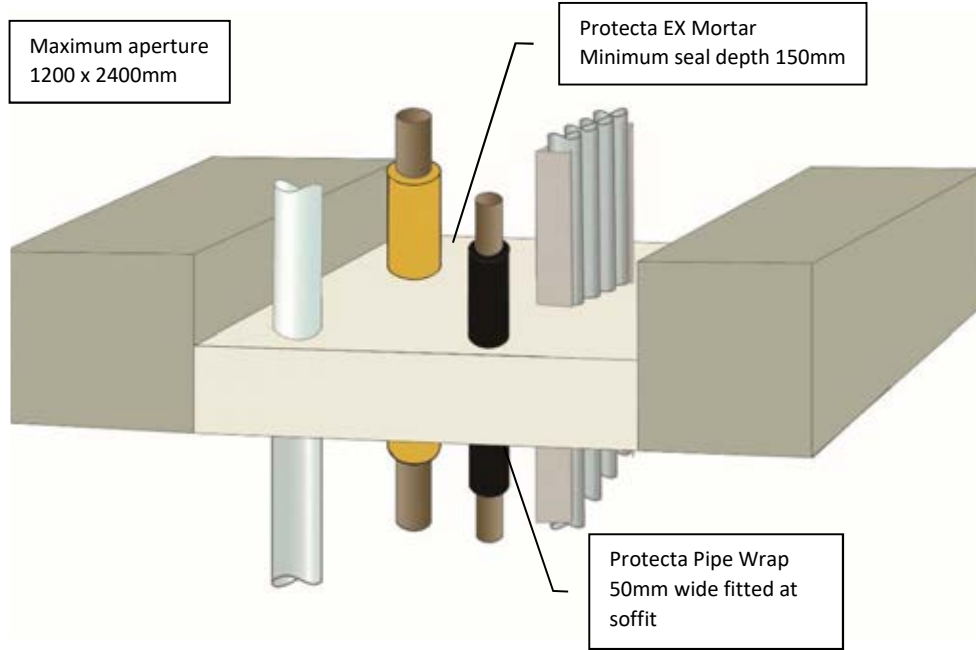
**MIXED SERVICE APERTURE**Fire Classification **EI 120**Sound Reduction **48 dB**

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Type of Services	Size of Services	Pipe wall thicknesses	Pipe Insulation	Pipe config	Pipe Wraps
Polo-Kal NG pipes	≤ Ø110mm per pipe	-	-	U/C	2 layers of 50mm wide soffit side
	Ø125mm per pipe	-	-	U/C	4 layers of 50mm wide soffit side
	Ø160mm per pipe	-	-	U/C	6 layers of 50mm wide soffit side
Rehau Raupiano Plus pipes	≤ Ø50mm per pipe	-	-	U/U	2 layers of 50mm wide soffit side
	≤ Ø110mm per pipe	-	-	U/C	2 layers of 50mm wide soffit side
	Ø125mm per pipe	-	-	U/C	4 layers of 50mm wide soffit side
	Ø160mm per pipe	-	-	U/C	6 layers of 50mm wide soffit side
Wavin SiTech pipes	≤ Ø50mm per pipe	-	-	U/U	2 layers of 50mm wide soffit side
	≤ Ø110mm per pipe	-	-	U/C	2 layers of 50mm wide soffit side
Conduits of PVC-U & PVC-C pipes	≤ Ø110mm w/cables ≤ Ø14mm	2.7-6.6mm	-	U/C	2 layers of 50mm wide soffit side
Ventilation ducts	≤ Ø400mm	-	≥ 30mm thick x 15cm long stonewool mat ≥80kg/m <sup>3</sup> top side	-	Protecta FR Damper

Installation Instructions

1. Ensure the faces of the aperture opening are free of dust and any other contaminants. The faces may be moistened for better adhesion.
2. Bare metal passing through the seal must be protected against corrosion using a suitable primer/protection system.
3. The seal can be positioned to either side of the construction or anywhere in between.
4. When installing Protecta® EX Mortar in hollow floor slabs or boards, level the fire seal with the soffit side. Ensure there is sufficient thickness of concrete below the void for the depth of mortar. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
5. Install a shutter board to achieve the required thickness of mortar. Make sure that this achieves a very tight seal.
6. Pour clean water into a suitable mixing vessel and pour enough mortar to obtain the required consistency. Mix well to avoid lumps. Always add the mortar to the water, do not reverse this mixing process.
7. Once the desired consistency is achieved pour or trowel the mortar onto the shutter board making sure that it flows into all corners and around services. Apply a firm pressure to the mortar to eliminate any trapped air bubbles. Build up to the required depth.



**Loadbearing Properties**

Soft body impact, serviceability 500Nm. Soft body impact, safety in use 700Nm. Hard body impact serviceability 6Nm. Hard body impact, safety in use 10Nm. Concentrated load to 15kN on size up to 1500mm x1000mm (no failure), 4.85kN on sizes up to 1200mm x 2400mm.

**Minimum separations and limitations**

An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 30mm from seal edges. Services within the seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.

**MIXED SERVICE APERTURE**

Fire Classification **EI 120**  
Sound Reduction **48 dB**

Installation details - Page 1 of 5

**Products** Protecta EX Mortar  
Protecta FR Pipe Wrap

**Construction** Minimum floor thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650kg/m<sup>3</sup>

**Services**

1. Cables, with or without cable trays
2. Steel pipes
3. Copper pipes
4. Alupex pipes
5. Plastic pipes
6. Composite pipes
7. Conduits
8. Ventilation ducts

For full specification see pages 2 - 5.

**Indoor air comfort test results**

- EMICODE EC 1<sup>PLUS</sup> – Complies
- BREEAM-NOR – Complies
- DIBt – Complies
- LEED – Complies

**Durability**

Z<sub>2</sub> - Intended for use in internal conditions with humidity classes other than Z<sub>1</sub>, excluding temperatures below 0 °C.



ETA 13/0672 & 18/0855

As a part of our policy of on-going product development and testing, we reserve the right to modify, alter or change product specifications without giving notice. All information contained in this document is given in good faith and is provided for guidance only. Any drawings provided are for illustrative purposes only. As Polyseam has no control over the methods or competence of installation and of prevailing site conditions, no warranties, expressed or implied, is intended to be given as to the actual performance of the product mentioned or referred to herein and no liability whatsoever will be accepted for any loss, damage or injury arising from the use of the information given.

For all technical details on the products specified please refer to the technical data sheets that can be found on <http://www.protecta.eu>

Polyseam Ltd, 15 St Andrews Road, Huddersfield, West Yorkshire, HD1 6SB, United Kingdom  
Tel: +44 (0) 1484 421 036

**NTS**

**K.B. 17/3/19**



**MIXED SERVICE APERTURE**Fire Classification **EI 120**Sound Reduction **48 dB**

List of services - Page 2 of 5

Type of Services	Size of Services	Pipe wall thicknesses	Pipe Insulation	Pipe config	Pipe Wraps
Cables, with or without trays or ladders	≤ Ø21mm cables single or bundled	-	-	-	-
	≤ Ø16mm PVC conduits	-	-	C/U	-
	≤ Ø24mm unsheathed cables/wires	-	-	-	-
	≤ 500mm wide trays or ladders	-	-	-	-
Steel pipes	≤ Ø16mm per pipe	-	None	C/U	-
	≤ Ø40mm per pipe	-	13mm thick continuous elastomeric or phenolic	C/U	1 layer of 50mm wide soffit side
	≤ Ø40mm per pipe	-	14 - 25mm thick continuous elastomeric or phenolic	C/U	2 layers of 50mm wide soffit side
	≤ Ø165mm per pipe	-	14 - 19mm thick continuous elastomeric or phenolic	C/U	1 layer of 50mm wide soffit side
	≤ Ø324mm per pipe	-	25mm thick continuous elastomeric or phenolic	C/U	2 layers of 50mm wide soffit side
	≤ Ø324mm per pipe	-	26 - 50mm thick continuous elastomeric or phenolic	C/U	3 layers of 50mm wide soffit side
	≤ Ø324mm per pipe	-	20 - 80mm thick continuous stone wool ≥ 80kg/m <sup>3</sup>	C/U	-
	≤ Ø40mm per pipe	-	≥ 20mm thick x 100cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/U	-
Copper pipes	Ø6mm per pipe	-	None	C/C	-
	≤ Ø12mm per pipe	-	9mm thick continuous elastomeric or phenolic	C/C	2 layers of 50mm wide soffit side
	≤ Ø54mm per pipe	-	20 - 80mm thick continuous stone wool ≥ 80kg/m <sup>3</sup>	C/C	-
	≤ Ø54mm per pipe	-	≥ 20mm thick x 100cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/C	-
Alupex pipes	≤ Ø20mm per pipe	-	None	C/C	-
	≤ Ø16mm per pipe	-	9mm thick continuous elastomeric or phenolic	C/C	2 layers of 50mm wide soffit side
	≤ Ø75mm per pipe	-	≥ 20mm thick x 50cm long stone wool ≥ 80 kg/m <sup>3</sup> both sides	C/C	-

**MIXED SERVICE APERTURE**Fire Classification **EI 120**Sound Reduction **48 dB**

List of services - Page 3 of 5

Type of Services	Size of Services	Pipe wall thicknesses	Pipe Insulation	Pipe config	Pipe Wraps
PVC-U and PVC-C pipes	≤ Ø40mm per pipe	1.6-3.0mm	-	U/C	None
	≤ Ø40mm per pipe	1.8-3.7mm	-	U/U	1 layer of 50mm wide soffit side
	≤ Ø110mm per pipe	1.9-6.6mm	-	U/C	2 layers of 50mm wide soffit side
	≤ Ø125mm per pipe	3.5-7.4mm	-	U/C	4 layers of 50mm wide soffit side
	≤ Ø160mm per pipe	4.5-9.5mm	-	U/C	6 layers of 50mm wide soffit side
	Ø 315mm per pipe	7.7mm		C/C	10 layers of 75mm wide soffit side
PE, ABS and SAN+PVC pipes	≤ Ø40mm per pipe	1.8-4.4mm	-	U/C	None
	≤ Ø40mm per pipe	2.4-3.7mm	-	U/U	1 layer of 50mm wide soffit side
	≤ Ø110mm per pipe	2.5-10.0mm	-	U/C	2 layers of 50mm wide soffit side
	≤ Ø110mm per pipe	3.4-10.0mm	-	U/U	3 layers of 75mm wide soffit side
	≤ Ø125mm per pipe	3.9-11.4mm	-	U/C	4 layers of 50mm wide soffit side
	Ø 125mm per pipe	11.4mm	-	U/U	4 layers of 50mm wide soffit side
	Ø 140mm per pipe	8.0-12.4mm	-	U/U	6 layers of 75mm wide soffit side
	≤ Ø160mm per pipe	4.9-14.6mm	-	U/U	4 layers of 75mm wide soffit side
	≤ Ø160mm per pipe	3.9-4.8mm	-	U/U	10 layers of 75mm wide soffit side
≤ Ø250mm per pipe	7.8mm	-	C/C	7 layers of 75mm wide soffit side	

**MIXED SERVICE APERTURE**Fire Classification **EI 120**Sound Reduction **48 dB**

List of services - Page 4 of 5

Type of Services	Size of Services	Pipe wall thicknesses	Pipe Insulation	Pipe config	Pipe Wraps
PP pipes	≤ Ø40mm per pipe	1.8-4.4mm	-	U/C	None
	≤ Ø40mm per pipe	1.8-5.5mm	-	U/U	1 layer of 50mm wide soffit side
	≤ Ø110mm per pipe	1.9-6.3mm	-	U/C	2 layers of 50mm wide soffit side
	≤ Ø110mm per pipe	3.7-10.5mm	-	U/U	4 layers of 50mm wide soffit side
	≤ Ø125mm per pipe	3.4-11.4mm	-	U/C	4 layers of 50mm wide soffit side
	Ø125mm per pipe	11.4mm	-	U/U	4 layers of 50mm wide soffit side
	Ø140mm per pipe	12.8mm	-	U/U	4 layers of 75mm wide soffit side
	≤ Ø160mm per pipe	4.9-14.6mm	-	U/C	6 layers of 50mm wide soffit side
	Ø160mm per pipe	14.6mm	-	U/U	4 layers of 75mm wide soffit side
	≤ Ø200mm per pipe	4.9-18.2mm	-	C/C	6 layers of 75mm wide soffit side
Ø315mm per pipe	7.7mm	-	C/C	10 layers of 75mm wide soffit side	
PEX pipe-in-pipes	≤ Ø25mm per pipe	-	-	C/C	None
	≤ Ø54mm per pipe	-	-	C/C	2 layers of 50mm wide soffit side
Aquatherm Green SDR9 pipes	Ø32mm per pipe	-	-	C/C	1 layer of 50mm wide soffit side
	≤ Ø110mm per pipe	-	-	C/C	2 layers of 50mm wide soffit side
Geberit Silent-PP pipes	≤ Ø50mm per pipe	-	-	U/U	2 layers of 50mm wide soffit side
	≤ Ø110mm per pipe	-	-	U/C	2 layers of 50mm wide soffit side
Polo-Kal NG pipes	≤ Ø110mm per pipe	-	-	U/C	2 layers of 50mm wide soffit side
	Ø125mm per pipe	-	-	U/C	4 layers of 50mm wide soffit side
	Ø160mm per pipe	-	-	U/C	6 layers of 50mm wide soffit side
Rehau Raupiano Plus pipes	≤ Ø50mm per pipe	-	-	U/U	2 layers of 50mm wide soffit side
	≤ Ø110mm per pipe	-	-	U/C	2 layers of 50mm wide soffit side
	Ø125mm per pipe	-	-	U/C	4 layers of 50mm wide soffit side
	Ø160mm per pipe	-	-	U/C	6 layers of 50mm wide soffit side

**MIXED SERVICE APERTURE**Fire Classification **EI 120**Sound Reduction **48 dB**

List of services - Page 5 of 5

Type of Services	Size of Services	Pipe wall thicknesses	Pipe Insulation	Pipe config	Pipe Wraps
Wavin SiTech pipes	≤ Ø50mm per pipe	-	-	U/U	2 layers of 50mm wide soffit side
	≤ Ø110mm per pipe	-	-	U/C	2 layers of 50mm wide soffit side
Conduits of PVC-U & PVC-C pipes	≤ Ø110mm w/cables ≤ Ø14mm	2.7-6.6mm	-	U/C	2 layers of 50mm wide soffit side
Ventilation ducts	≤ Ø400mm	-	≥ 30mm thick x 15cm long stonewool mat ≥80kg/m <sup>3</sup> top side	-	Protecta FR Damper

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## Contact us

### **UK (North) Head Office and Factory**

Polyseam Ltd,  
15 St Andrews Road,  
Huddersfield, HD1 6SB. United Kingdom.  
Tel: +44(0)1484 421036  
E: post.uk@polyseam.com

### **UK (South) Marketing Suite**

Polyseam Ltd,  
Warnford Court, 29 Throgmorton Street,  
London, EC2N 2AT. United Kingdom.  
T: +44 (0)207 947 4123  
E: marketing@polyseam.com

### **Norway**

Polyseam AS,  
Ravneveien 7, Linnestad Næringsområde  
N-3174 Revetal, Norway.  
T: +47 3330 6690  
E: post.no@polyseam.com

### **Sweden**

Polyseam AB,  
Frukthandlarvägen 7  
120 44 Årsta, Sweden.  
T: +46 (0)8 124 563 00  
E: post.se@polyseam.com

[www.protecta.eu](http://www.protecta.eu)

