



ETA-Danmark A/S  
Göteborg Plads 1  
DK-2150 Nordhavn  
Tel. +45 72 24 59 00  
Internet [www.etadanmark.dk](http://www.etadanmark.dk)

Authorised and notified according  
to Article 29 of the Regulation (EU)  
No 305/2011 of the European  
Parliament and of the Council of 9  
March 2011

MEMBER OF EOTA



## European Technical Assessment ETA-22/0157 of 2022/03/07

### I General Part

**Technical Assessment Body issuing the ETA and designated according to Article 29 of the Regulation (EU) No 305/2011: ETA-Danmark A/S**

**Trade name of the construction product:**

FIREPRO® Ablative Coated Batt

**Product family to which the above construction product belongs:**

Fire Stopping, Fire Sealing & Fire Protective Products.  
Fire Retardant Products

**Manufacturer:**

ROCKWOOL Ltd.  
Wern Tarw  
Pencoed, Bridgend  
South Wales CF35 6NY  
United Kingdom

**Manufacturing plant:**

E/089

**This European Technical Assessment contains:**

178 pages including 2 annexes which form an integral part of the document

**This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of:**

EAD 350454-00-1104 Firestopping and fire sealing products, Penetration Seals

**This version replaces:**

Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document and should be identified as such.

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## II SPECIFIC PART OF THE EUROPEAN TECHNICAL ASSESSMENT

### 1 Technical description of the product

FIREPRO® Ablative Coated Batt is a coated mineral wool batt used to reinstate the fire resistance performance of wall constructions where they have been provided with apertures for the penetration of single or multiple services.

FIREPRO® Ablative Coated Batt is supplied coated on both faces. The batt is then cut, and friction fit into the aperture, prior to being inserted into the aperture in the wall.

FIREPRO® Ablative Coated Batt are either 50mm thick and supplied in overall dimensions 1200mm x 600mm with a minimum density of 160kg.m<sup>3</sup> or 60 mm thick and supplied in overall dimensions 1200mm x 600mm with a nominal density of 180 kg.m<sup>3</sup> and are coated on both sides.

FIREPRO® Acoustic Intumescent Sealant is required to seal all joints and junctions during the sealing process. FIREPRO® Acoustic Intumescent Sealant is subject to a separate ETA referenced ETA-20/1129 & ETA-20/1130.

FIREPRO® High Expansion Intumescent Sealant is required to seal around specific services (See Annex B). FIREPRO® High Expansion Intumescent Sealant is subject to a separate ETA referenced ETA-20/1131.

### 2 Specification of the intended use in accordance with the applicable European Assessment Document (hereinafter EAD)

The intended use of FIREPRO® Ablative Coated Batt is to reinstate the fire resistance performance of rigid and flexible wall constructions and rigid floor constructions where they are penetrated by various cables and metallic pipes.

The specific elements of construction that the system FIREPRO® Ablative Coated Batt may be used to provide a penetration seal in, are as follows:

#### Rigid floors

The floor must have a minimum thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m<sup>3</sup>.

#### Rigid Walls:

The wall must have a minimum thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m<sup>3</sup>.

#### Flexible Walls:

The wall must have a minimum thickness of 75 mm and comprise timber or steel studs lined on both faces with minimum 2 layers of 12.5 mm thick, 'Type F' Gypsum boards according to EN 520. In timber stud walls, the cavity must be closed between the penetration seal and the stud and minimum 100 mm of insulation of class A1 or A2 according to EN 13501-1, is provided within the cavity between the penetration seal and the stud.

The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance period.

The FIREPRO® Ablative Coated Batt may be used to provide a penetration seal with pipes and cables, and cable trays and ladders (for details see Annex B).

The total amount of cross section of services (including insulation) should not exceed 60% of the penetration area.

The minimum permitted separation between adjacent seals/apertures is 200 mm.

Pipes and cables do not have to be installed singular.

The use category of the FIREPRO® Ablative Coated Batt is Type Z<sub>1</sub>: Intended for use in internal conditions with humidity equal to or higher than 85% RH excluding temperatures below 0°C, without exposure to rain or UV.

The provisions made in this European Technical Assessment are based on an assumed intended working life of the batts of 25 years, provided that the conditions laid down in the product data sheet for the packaging/transport/storage/installation/use/repair are met.

The indications given on the intended working life cannot be interpreted as a guarantee given by the producer or the Technical Assessment Body but are to be regarded only as a means for selecting the appropriate products in relation to the expected economically reasonable working life of the works.

### 3 Performance of the product and references to the methods used for its assessment.

Characteristic	Assessment of characteristic																																																						
<b>3.1 Safety in case of fire (BWR 2)</b> Reaction to fire Resistance to fire	No performance assessed See Annex B																																																						
<b>3.2 Safety in case of fire (BWR 2)</b> Air permeability	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th colspan="5">Product tested</th> </tr> <tr> <th rowspan="2">Pressure (Pa)</th> <th colspan="2">Results under positive chamber pressure</th> <th colspan="2">Results under negative chamber pressure</th> </tr> <tr> <th>Leakage (m<sup>3</sup>/h)</th> <th>Leakage (m<sup>3</sup>/m<sup>2</sup>/h)</th> <th>Leakage (m<sup>3</sup>/h)</th> <th>Leakage (m<sup>3</sup>/m<sup>2</sup>/h)</th> </tr> </thead> <tbody> <tr><td>50</td><td>0.6</td><td>0.8</td><td>1.1</td><td>1.5</td></tr> <tr><td>100</td><td>1.0</td><td>1.4</td><td>1.3</td><td>1.8</td></tr> <tr><td>150</td><td>2.8</td><td>3.9</td><td>1.5</td><td>2.1</td></tr> <tr><td>200</td><td>3.8</td><td>5.3</td><td>1.9</td><td>2.6</td></tr> <tr><td>250</td><td>4.5</td><td>6.3</td><td>2.0</td><td>2.8</td></tr> <tr><td>300</td><td>5.0</td><td>6.9</td><td>2.4</td><td>3.3</td></tr> <tr><td>450</td><td>5.1</td><td>7.1</td><td>1.9</td><td>2.6</td></tr> <tr><td>600</td><td>6.7</td><td>9.3</td><td>2.2</td><td>3.1</td></tr> </tbody> </table>	Product tested					Pressure (Pa)	Results under positive chamber pressure		Results under negative chamber pressure		Leakage (m <sup>3</sup> /h)	Leakage (m <sup>3</sup> /m <sup>2</sup> /h)	Leakage (m <sup>3</sup> /h)	Leakage (m <sup>3</sup> /m <sup>2</sup> /h)	50	0.6	0.8	1.1	1.5	100	1.0	1.4	1.3	1.8	150	2.8	3.9	1.5	2.1	200	3.8	5.3	1.9	2.6	250	4.5	6.3	2.0	2.8	300	5.0	6.9	2.4	3.3	450	5.1	7.1	1.9	2.6	600	6.7	9.3	2.2	3.1
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Water permeability Content, emission and/or release of dangerous substances	No performance assessed All dangerous chemical substances are below the classification limits of 67/548/EEC*																																																						
<b>3.3 Safety and accessibility in use (BWR4)</b> Mechanical resistance and stability Resistance to impact/movement Adhesion Durability	No performance assessed No performance assessed No performance assessed Use category: Type Z <sub>1</sub>																																																						
<b>3.4 Protection against noise (BWR5)</b> Airborne sound insulation	$R_w (C; C_{tr}) = 24(-2; -3) \text{ dB}$																																																						
<b>3.5 Energy economy and heat retention (BWR6)</b> Thermal properties Water vapour permeability	No performance assessed No performance assessed																																																						

See additional information in section 3.6-3.7

\*) In addition to the specific clauses relating to dangerous substances contained in this European technical Assessment, there may be other requirements applicable to the products falling within its scope (e.g., transposed European legislation and national laws, regulations and administrative provisions). In order to meet the provisions of the Construction Products Regulation, these requirements need also to be complied with, when and where they apply.

### **3.6 Methods of verification**

The assessment of FIREPRO® Ablative Coated Batt for the declared intended use has been made in accordance with EAD 350454-00-1104 Firestopping and fire sealing products, Penetration Seals.

### **3.7 General aspects related to the fitness for use of the product.**

The European Technical Assessment is issued for the product based on agreed data/information, deposited with ETA-Danmark, which identifies the product that has been assessed and judged. Changes to the product or production process, which could result in this deposited data/information being incorrect, should be notified to ETA-Danmark before the changes are introduced. ETA-Danmark will decide if such changes affect the ETA and consequently the validity of the CE marking based on the ETA and if so whether further assessment or alterations to the ETA, shall be necessary.

The FIREPRO® Ablative Coated Batt for firestopping and fire sealing purposes are manufactured in accordance with the provisions of this European Technical Assessment using the manufacturing processes as identified in the inspection of the plant by the notified inspection body and laid down in the technical documentation.

**4 Attestation and verification of constancy of performance (hereinafter AVCP) system applied, with reference to its legal base.**

**4.1 AVCP system**

According to the decision 1999/454/EC of the European Commission, the system of assessment and verification of constancy of performance (see Annex V to Regulation (EU) No 305/2011) is: **1**.

**5 Technical details necessary for the implementation of the AVCP system, as foreseen in the applicable EAD.**

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at ETA-Danmark prior to CE marking.

Issued in Copenhagen on 2022-03-07 by



Thomas Bruun  
Managing Director, ETA-Danmark

## **Annex A**

### **Description of Product and Product Literature FIREPRO® Ablative Coated Batt**

A detailed specification of the product is contained in document "Evaluation Report" relating to the European Technical Assessment ETA – XX/YYYY, of FIREPRO® Ablative Coated Batt which is a non-public part of this ETA.

## Annex B

### Resistance to Fire Classification of FIREPRO® Ablative Coated Batt

#### B1 FIREPRO® Ablative Coated Batt Penetration Seal in Flexible or Rigid Walls min. 75 mm thick

B1.1 Single Layer (50mm both sides) FIREPRO® Ablative Coated Batt Pattress Install Penetration Seal

B1.1.1 Cables and Conduits Penetrations

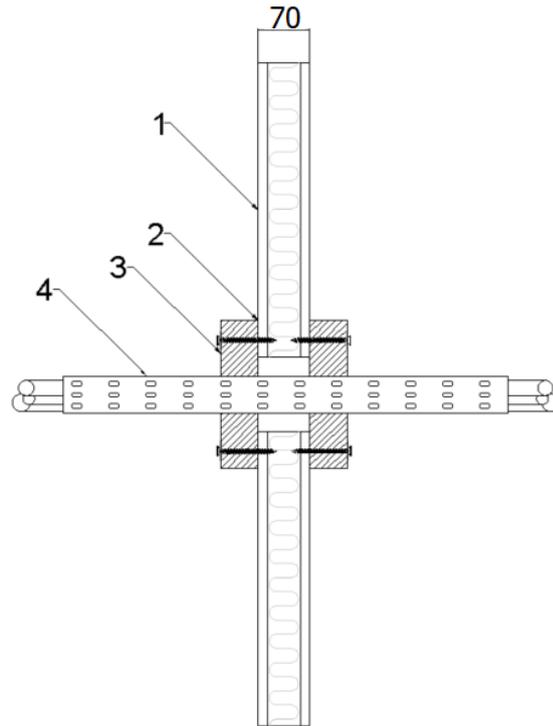
<p><b>Construction details:</b></p> <ul style="list-style-type: none"> <li>• Single layer of FIREPRO® Ablative Coated Batt pattress installed both sides of the wall.</li> <li>• Max. Aperture size 570mm wide x 200mm high</li> <li>• Pattress installation of FIREPRO® Ablative Coated Batt.</li> <li>• The FIREPRO® Ablative Coated Batt are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 50mm. Batt's mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.</li> <li>• First service support 1025mm from both faces of the substrate</li> </ul>

Service(s)	Classification
500mm wide x 60mm deep steel cable basket containing 3 x type 'B' cable and 20 x bundle of telecoms cables	<b>EI90</b>
500mm wide x 60mm deep steel cable tray containing 1 x type 'B' cable, 3 x type 'A1' cable, 3 x type 'A2' cable, and 3 x type 'A3' cable	

Service(s)	Classification
20mm dia Adaptaflex SPL20 flexible conduit	<b>EI90</b> <b>EI60</b>
20mm dia Kopex KSU 316 stainless steel flexible conduit	
150mm wide x 60mm deep steel cable tray containing 4 x FP200 Gold (Firealarm cable 7mm dia red) Cables	

**Construction details:**

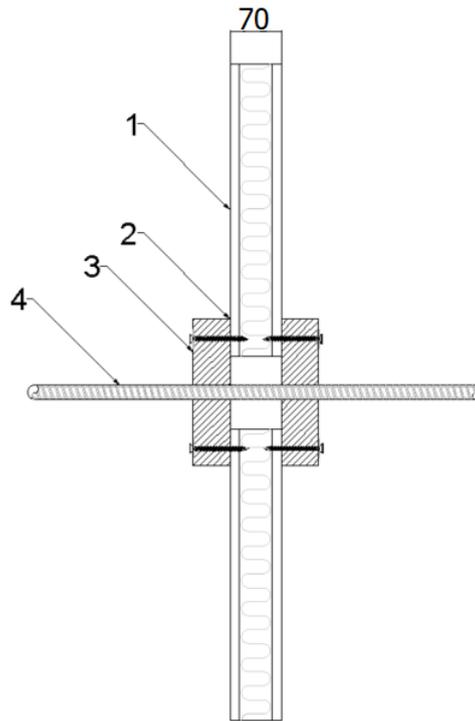
- Single layer of FIREPRO® Ablative Coated Batt pattress installed both sides of the wall.
- Max. Aperture size 570mm wide x 200mm high
- Pattress installation of FIREPRO® Ablative Coated Batt.
- The Batts are installed in horizontal rows and fixed on all edges.
- Overlap of batts to substrate min 50mm.
- Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer.
- Fixings installed at max 300mm centers.



Service(s)	Classification
500mm wide x 60mm deep steel cable basket containing 3 x type 'B' cable and 20 x bundle of telecoms cables	<b>EI90</b>
500mm wide x 60mm deep steel cable tray containing 1 x type 'B' cable, 3 x type 'A1' cable, 3 x type 'A2' cable, and 3 x type 'A3' cable	

**Construction details:**

- Single layer of FIREPRO® Ablative Coated Batt pattress installed both sides of the wall.
- Max. Aperture size 570mm wide x 200mm high
- Pattress installation of FIREPRO® Ablative Coated Batt.
- The Batts are installed in horizontal rows and fixed on all edges.
- Overlap of batts to substrate min 50mm.
- Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer.
- Fixings installed at max 300mm centers.



Service(s)	Classification
20mm dia Adaptaflex SPL20 flexible conduit	<b>EI90</b>
20mm dia Kopex KSU 316 stainless steel flexible conduit	
150mm wide x 60mm deep steel cable tray containing 4 x FP200 Gold (Firealarm cable 7mm dia red) Cables	<b>E 90</b> <b>EI 60</b>

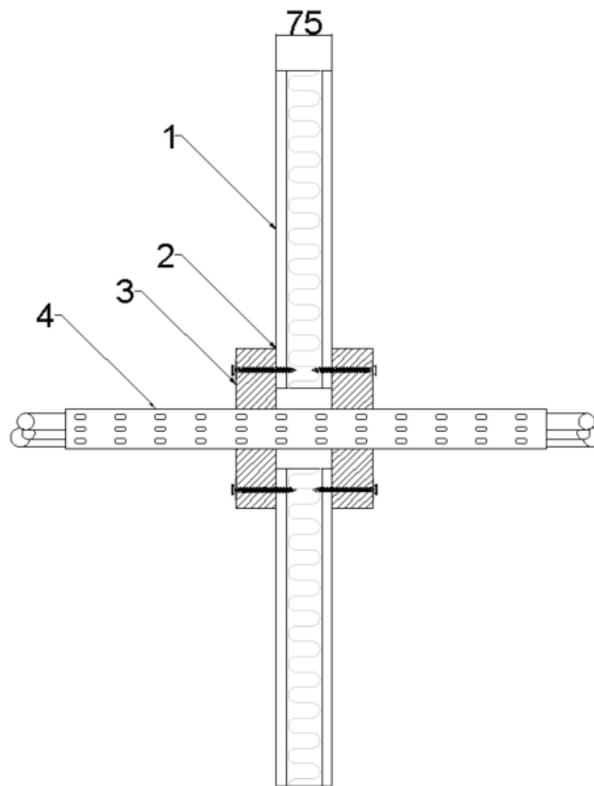
## B2 FIREPRO® Ablative Coated Batt Penetration Seal in Flexible Walls 75 mm thick

### B2.1 Single Layer (50mm) FIREPRO® Ablative Coated Batt

#### Penetration Seal B 2.1.1 Electrical Cables

**Construction details:**

- Single layer of FIREPRO® Ablative Coated Batt pattress installed both sides of the wall..
- Max. Aperture size 570mm wide x 200mm high
- First service support 250mm from both faces of the substrate.
- Pattress installation of FIREPRO® Ablative Coated Batt.
- The Batts are installed in horizontal rows and fixed in minimum two vertical edges.
- Overlap of batts to substrate min 50mm.
- Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer.
- Fixings installed at max 300mm centers



Service(s)	Classification
500mm wide x 60mm deep steel cable basket containing 3 x type 'B' cable and 20 x bundle of telecoms cables	<b>EI 90</b>
500mm wide x 60mm deep steel cable tray containing 1 x type 'B' cable, 3 x type 'A1' cable, 3 x type 'A2' cable, and 3 x type 'A3' cable	

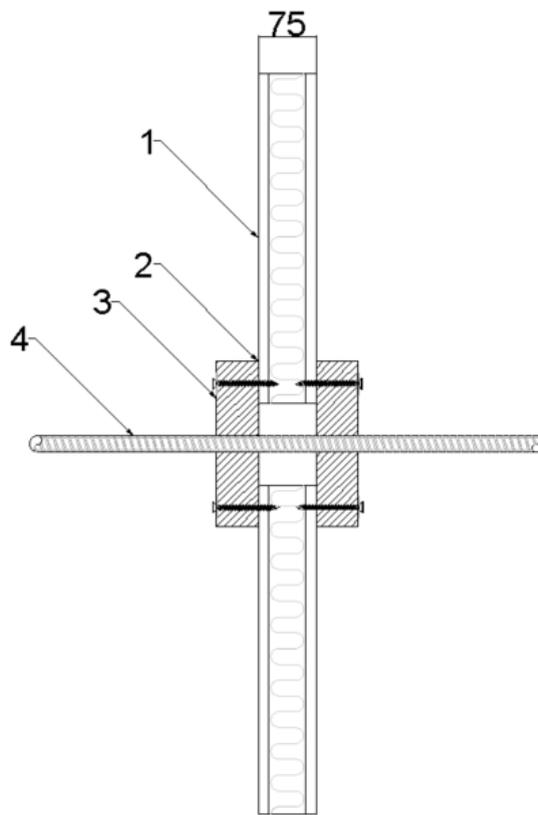
### B3 FIREPRO® Ablative Coated Batt Penetration Seal in Flexible Walls 75 mm thick

#### B3.1 Single Layer (50mm) FIREPRO® Ablative Coated Batt

##### Penetration Seal B 3.1.1 Electrical Cables and Conduits

**Construction details:**

- Single layer of FIREPRO® Ablative Coated Batt pattress installed both sides of the wall.
- Max. Aperture size 200mm wide x 200mm high
- Pattress installation of FIREPRO® Ablative Coated Batt.
- The Batts are installed in horizontal rows and fixed in minimum two vertical edges.
- Overlap of batts to substrate min 50mm.
- Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer.
- Fixings installed at max 300mm centers



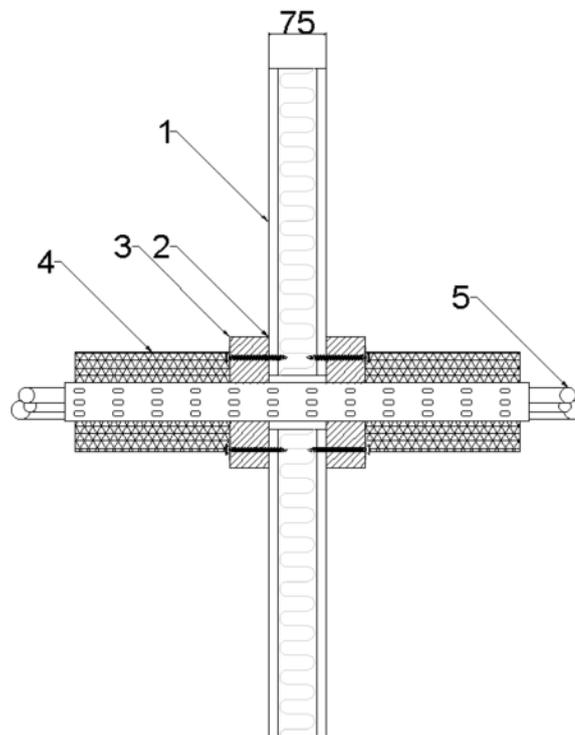
Service(s)	Classification
20mm dia Adaptaflex SPL20 flexible conduit	<b>EI 90</b>
20mm dia Kopex KSU 316 stainless steel flexible conduit	
150mm wide x 60mm deep steel cable tray	
4x FP200 Gold (Firealarm cable 7mm dia red) Cables	<b>E90 EI 60</b>

## B4 FIREPRO® Ablative Coated Batt Penetration Seal in Flexible Walls 75 mm thick

### B4.1 Single Layer (50mm) FIREPRO® Ablative Coated Batt Penetration Seal B 4.1.1 Electrical Cables and Cable Trunking

**Construction details:**

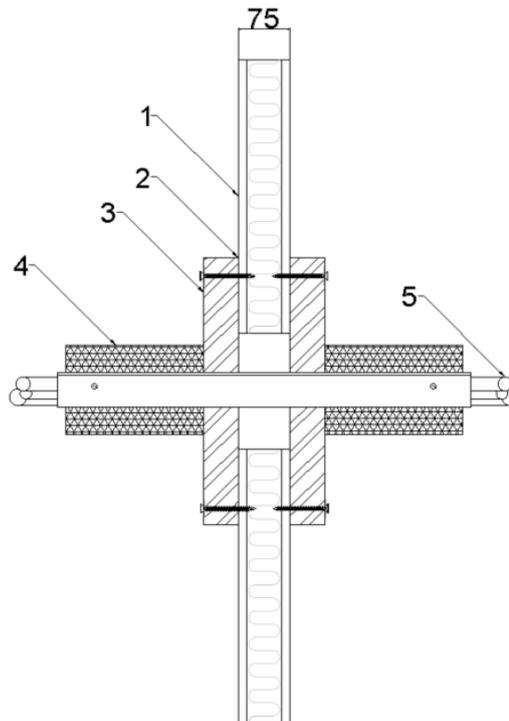
- Single layer of FIREPRO® Ablative Coated Batt pattress installed both sides of the wall.
- Max. Aperture size 70mm wide x 70mm high
- Pattress installation of FIREPRO® Ablative Coated Batt.
- The Batts are installed in horizontal rows and fixed in minimum two vertical edges.
- Overlap of batts to substrate min 50mm.
- Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer.
- Fixings installed at max 300mm centers



Service(s)	Classification
50mm x 50mm Insulated steel cable trunking, Stone Wool 40mm thick, 45kg/m <sup>3</sup> (LI 400mm). FIREPRO® Intumescent Pillow CE tightly fitted around the cables in the section of trunking within the depth of the partition.	<b>EI 60 U/U</b>
Cables 1xA1, 1xA2, 1xA3	<b>EI 60</b>
Cables 1xA1	
Cables 1xA2	
Cables 1xA3	

**Construction details:**

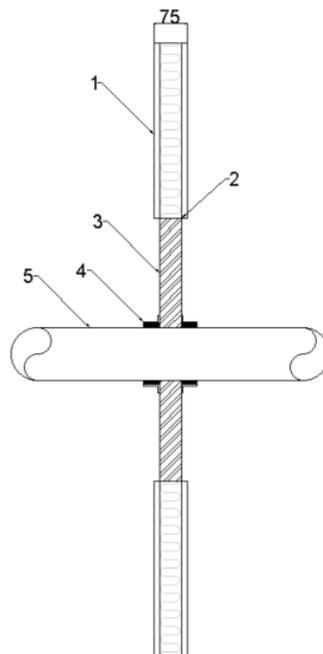
- Single layer of FIREPRO® Ablative Coated Batt pattress installed both sides of the wall.
- Max. Aperture size 170mm wide x 170mm high
- Pattress installation of FIREPRO® Ablative Coated Batt.
- The Batts are installed in horizontal rows and fixed in minimum two vertical edges.
- Overlap of batts to substrate min 50mm.
- Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer.
- Fixings installed at max 300mm centers



Service(s)	Classification
150mm x 150mm Insulated steel cable trunking, Stone Wool 40mm thick, 45kg/m <sup>3</sup> (LI 400mm). FIREPRO® Intumescent Pillow CE tightly fitted around the cables in the section of trunking within the depth of the partition.	<b>EI 60 U/U</b>
Cables 1xB1, 1xC1, 1xG1, 1xG2	<b>EI 60</b>
Cables 1xB1	
Cables 1xC1	
Uncheathed electrical cables 0-24 mm dia	

**B5 FIREPRO® Ablative Coated Batt Penetration Seal in Flexible Walls 75 mm thick****B5.1 Single Layer (50mm) FIREPRO® Ablative Coated Batt****Penetration Seal B 5.1.1 Plastic Pipes****Construction details:**

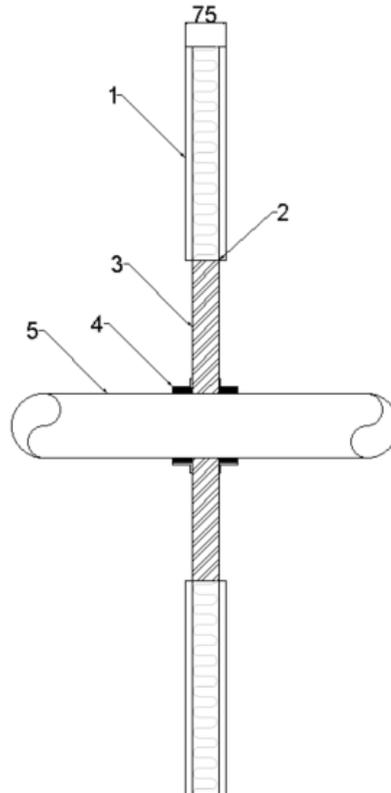
- Single layer of FIREPRO® Ablative Coated Batt (50mm) Plastic Pipes
- Max. Aperture size 600mm wide x 600mm high
- Penetrations positioned as per option 1 or 2 below, 0 mm distance between services and 50 mm to edge of seal.
- Collars secured both faces of the substrate utilizing 80mm long steel pig tail screw through to FIREPRO® Ablative Coated Batt



Penetration Specification	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 1.8mm wall thickness	32 mm	<b>EI 60 U/C</b>
PVC Pipe 40mm Ø, 1.8mm wall thickness	40 mm	
PVC Pipe 50mm Ø, 1.8mm wall thickness	50 mm	
PVC Pipe 55mm Ø, 1.8-2.3mm wall thickness	55 mm	
PVC Pipe 63mm Ø, 2.3-3mm wall thickness	63 mm	
PVC Pipe 75mm Ø, 3.1-4.8mm wall thickness	75 mm	
PVC Pipe 82mm Ø, 3.1-4.8mm wall thickness	82 mm	
PVC Pipe 90mm Ø, 4.2-7.4mm wall thickness	90 mm	
PVC Pipe 100mm Ø, 4.2-7.4mm wall thickness	100 mm	
PVC Pipe 110mm Ø, 4.2-7.4mm wall thickness	110 mm	
PVC Pipe 125mm Ø, 6mm wall thickness	125 mm	
PVC Pipe 140mm Ø, 6.1-7.5mm wall thickness	140 mm	

**Construction details:**

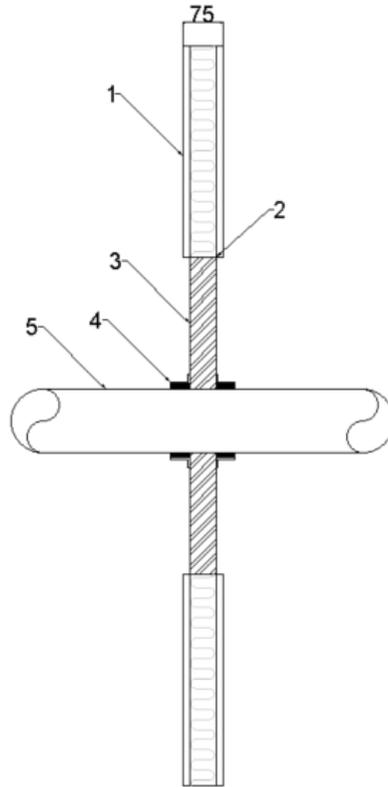
- Single layer of FIREPRO® Ablative Coated Batt (50mm) Plastic Pipes
- Max. Aperture size 600mm wide x 600mm high
- Penetrations positioned as per option 1 or 2 below, 0 mm distance between services and 50 mm to edge of seal.
- Collars secured both faces of the substrate utilizing 80mm long steel pig tail screw through to FIREPRO® Ablative Coated Batt



Penetration Specification	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 2.9mm wall thickness	32 mm	<b>EI 60 U/C</b>
PVC Pipe 40mm Ø, 2.9mm wall thickness	40 mm	
PVC Pipe 50mm Ø, 2.9mm wall thickness	50 mm	
PVC Pipe 55mm Ø, 2.9-4.4mm wall thickness	55 mm	
PVC Pipe 63mm Ø, 2.9-4.4mm wall thickness	63 mm	
PVC Pipe 75mm Ø, 2.8-6.7mm wall thickness	75 mm	
PVC Pipe 82mm Ø, 2.8-6.7mm wall thickness	82 mm	
PVC Pipe 90mm Ø, 2.7-10mm wall thickness	90 mm	
PVC Pipe 100mm Ø, 2.7-10mm wall thickness	100 mm	
PVC Pipe 110mm Ø, 2.7-10mm wall thickness	110 mm	
PVC Pipe 125mm Ø, 3.1mm wall thickness	125 mm	
PVC Pipe 140mm Ø, 3.9-5.8mm wall thickness	140 mm	
PVC Pipe 160mm Ø, 4.9-9.5mm wall thickness	160 mm	

**Construction details:**

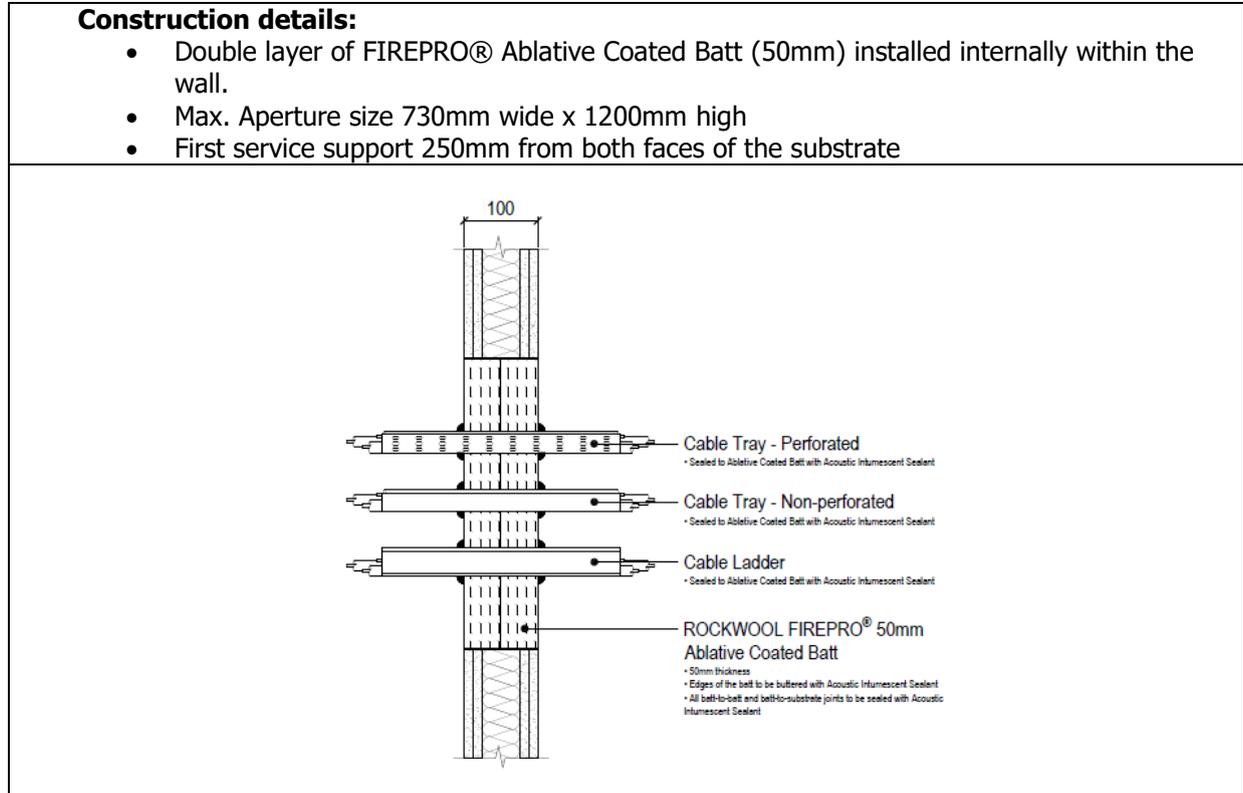
- Single layer of FIREPRO® Ablative Coated Batt (50mm) Plastic Pipes
- Max. Aperture size 600mm wide x 600mm high
- Penetrations positioned as per option 1 or 2 below, 0 mm distance between services and 50 mm to edge of seal.
- Collars secured both faces of the substrate utilizing 80mm long steel pig tail screw through to FIREPRO® Ablative Coated Batt



Penetration Specification	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 2.9mm wall thickness	32 mm	<b>EI 60 U/C</b>
PVC Pipe 40mm Ø, 2.9mm wall thickness	40 mm	
PVC Pipe 50mm Ø, 2.9mm wall thickness	50 mm	
PVC Pipe 55mm Ø, 2.9-4.4mm wall thickness	55 mm	
PVC Pipe 63mm Ø, 2.9-4.4mm wall thickness	63 mm	
PVC Pipe 75mm Ø, 2.8-6.7mm wall thickness	75 mm	
PVC Pipe 82mm Ø, 2.8-6.7mm wall thickness	82 mm	
PVC Pipe 90mm Ø, 2.7-10mm wall thickness	90 mm	
PVC Pipe 100mm Ø, 2.7-10mm wall thickness	100 mm	
PVC Pipe 110mm Ø, 2.7-10mm wall thickness	110 mm	
PVC Pipe 125mm Ø, 3.1mm wall thickness	125 mm	
PVC Pipe 140mm Ø, 3.5-8mm wall thickness	140 mm	
PVC Pipe 160mm Ø, 4-14.6mm wall thickness	160 mm	

## B6 FIREPRO® Ablative Coated Batt Penetration Seal in Flexible or Rigid Walls min. 100 mm thick

### B6.1 Double Layer (50mm) FIREPRO® Ablative Coated Batt Penetration Seal B 6.1.1 Cable Penetrations



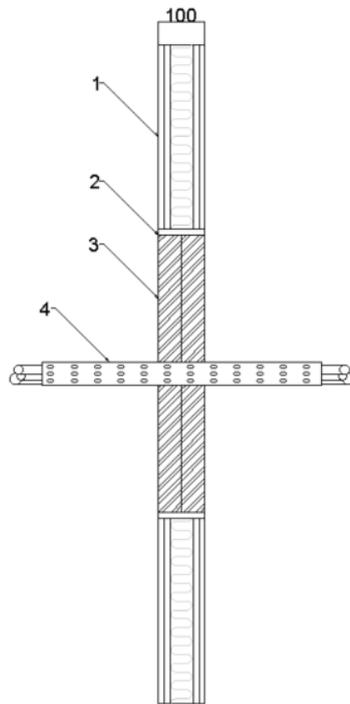
Service(s)	Classification
Electrical cables up to 21mm dia	<b>EI 60</b>
Electrical cables 22mm to 80mm dia	<b>E 60</b> <b>EI 45</b>
Cable Trays and Ladders	<b>EI 60</b>
100 mm diameter bundle telecommunication cable type "F"	<b>EI 60</b>
Unsheathed electrical cables up to 17mm dia	<b>E 60</b> <b>EI 30</b>
Unsheathed electrical cables 18-24mm dia	<b>E 60</b> <b>EI 15</b>
Steel or Copper Conduits up to 16mm	<b>E 60</b> <b>EI 15</b>
Plastic conduits up to 16mm	<b>EI 60</b>

## B7FIREPRO® Ablative Coated Batt Penetration Seal in Flexible or Rigid Walls min. 100 mm thick

B7.1 Double Layer (50mm) FIREPRO® Ablative Coated Batt Penetration Seal B 7.1.1 Electrical Cables and Conduits

### Construction details:

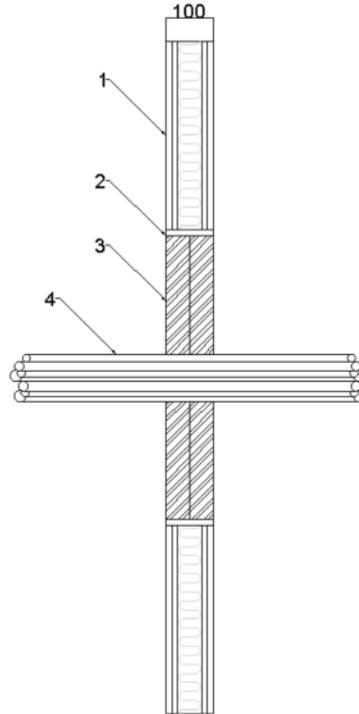
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 2600mm wide x 2600mm high
- First service support 250mm from both faces of the substrate



Service(s)	Classification
Electrical cables up to 21mm dia	<b>EI 60</b>
Electrical cables 22mm to 50mm dia	<b>E 60 EI 45</b>
Electrical cables 51mm to 80mm dia	<b>E 60 EI 30</b>
Cable Trays and Ladders	<b>E 60 EI 45</b>
100 mm diameter bundle telecommunication cable type "F"	<b>EI 60</b>
Unsheathed electrical cables up to 0-24mm dia	<b>EI 60</b>
Steel or Copper Conduits up to 16mm	<b>E60 C/U</b>
Plastic conduits up to 16mm	<b>EI 60 C/U</b>

**Construction details:**

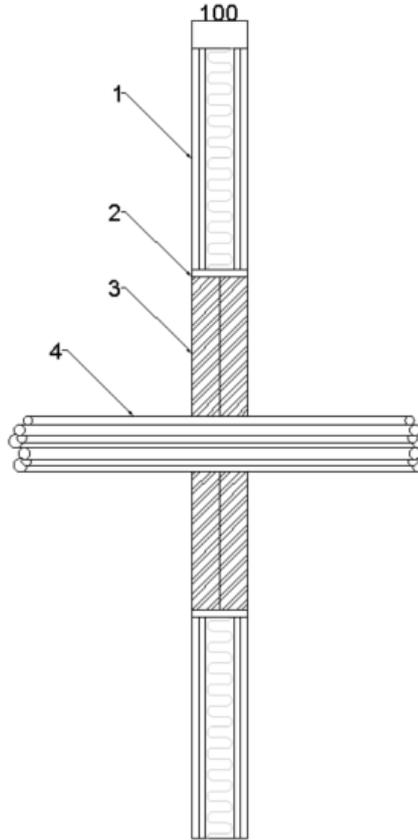
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 2600mm wide x 2600mm high
- First service support 250mm from both faces of the substrate



<b>Service(s)</b>	<b>Classification</b>
Electrical cables up to 21mm dia	<b>EI 60</b>
Electrical cables 22mm to 80mm dia	<b>E 60</b> <b>EI 45</b>
Cable Trays and Ladders	<b>EI 60</b>
100 mm diameter bundle telecommunication cable type "F"	<b>EI 60</b>
Unsheathed electrical cables up to 17mm dia	<b>E 60</b> <b>EI 30</b>
Unsheathed electrical cables up to 18-24mm dia	<b>E 60</b> <b>EI 15</b>
Steel or Copper Conduits up to 16mm	<b>E60</b> <b>EI 15</b>
Plastic conduits up to 16mm	<b>EI 60</b>

**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 2600mm wide x 2600mm high
- First service support 250mm from both faces of the substrate



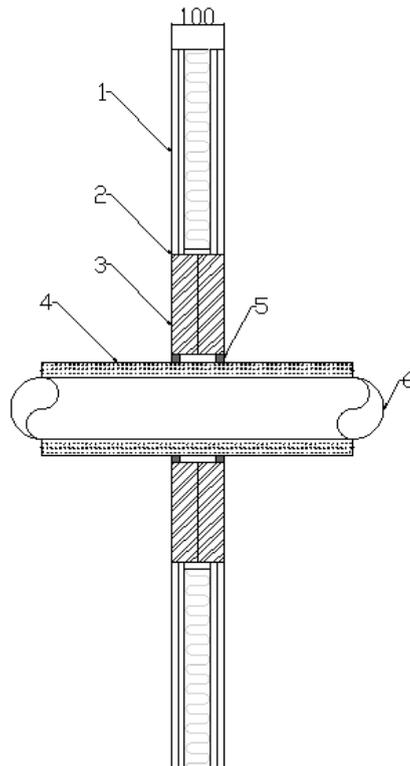
Service(s)	Classification
Electrical cables up to 21mm dia	<b>EI 60</b>
Electrical cables 22mm to 80mm dia	<b>E 60</b> <b>EI 45</b>
Cable Trays and Ladders	<b>EI 60</b>
100 mm diameter bundle telecommunication cable type "F"	<b>EI 60</b>
Unsheathed electrical cables up to 17mm dia	<b>E 60</b> <b>EI 30</b>
Unsheathed electrical cables up to 18-24mm dia	<b>E 60</b> <b>EI 15</b>
Steel or Copper Conduits up to 16mm	<b>E60</b> <b>EI 15</b>
Plastic conduits up to 16mm	<b>EI 60</b>

**B8 FIREPRO® Ablative Coated Batt Penetration Seal in Flexible or Rigid Walls min. 100 mm thick**

B8.1 Double Layer (50mm) FIREPRO® Ablative Coated Batt Penetration Seal B 8.1.1 Insulated Metallic Pipes

**Construction details:**

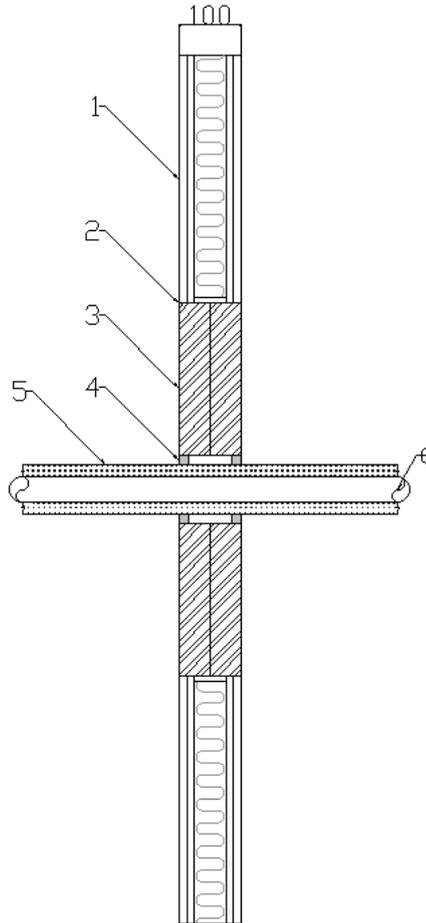
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 730mm wide x 1200mm high
- First service support 250mm from both faces of the substrate.
- 15mm deep x 15mm wide annulus FIREPRO® High Expansion Intumescent Sealant to both faces of the pipe



Service(s)	Classification
Single copper or mild steel pipe 40mm diameter and 1.5 – 14.2 mm wall with sustained/continuous 20mm thick foil faced glass wool insulation (min 80Kg/m <sup>3</sup> )	<b>E 90 U/C</b> <b>EI 60 U/C</b>
Single copper or mild steel pipe 40-159mm diameter and 2.3 – 14.2 mm wall with sustained/continuous 30mm thick foil faced glass wool insulation (min 80Kg/m <sup>3</sup> )	<b>EI 60 U/C</b>

**Construction details:**

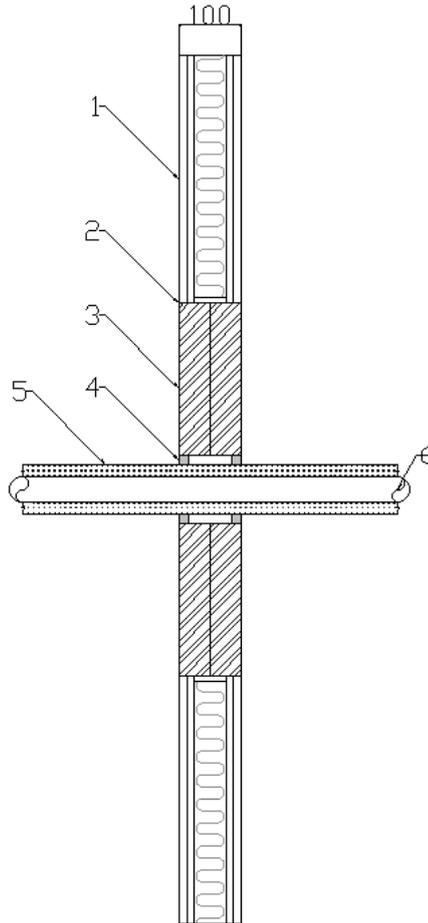
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 2600mm wide x 2600mm high
- First service support 250mm from both faces of the substrate.
- 15mm deep x 15mm wide annulus FIREPRO® High Expansion Intumescent Sealant to both faces of the pipe



Service(s)	Classification
Single copper or mild steel pipe 40mm diameter and 1.5 – 14.2 mm wall with sustained/continuous 20mm thick foil faced glass wool insulation (min 80Kg/m <sup>3</sup> )	<b>EI 60 U/C</b>
Single copper or mild steel pipe 40-159mm diameter and 2.3 – 14.2 mm wall with sustained/continuous 30mm thick foil faced glass wool insulation (min 80Kg/m <sup>3</sup> )	<b>EI 60 U/C</b>

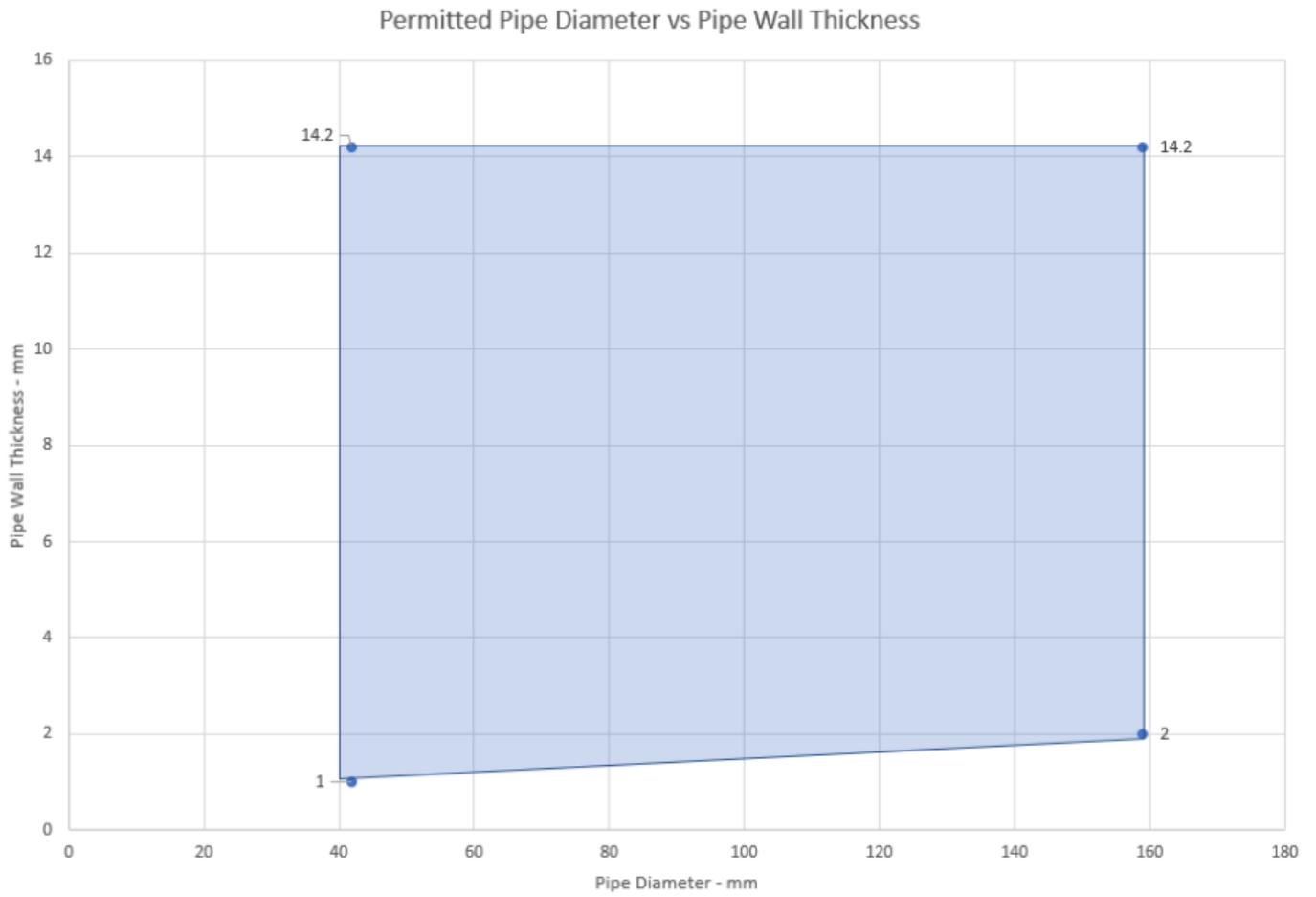
**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 730mm wide x 1200mm high
- First service support 250mm from both faces of the substrate.
- 15mm deep x 15mm wide annulus FIREPRO® High Expansion Intumescent Sealant to both faces of the pipe



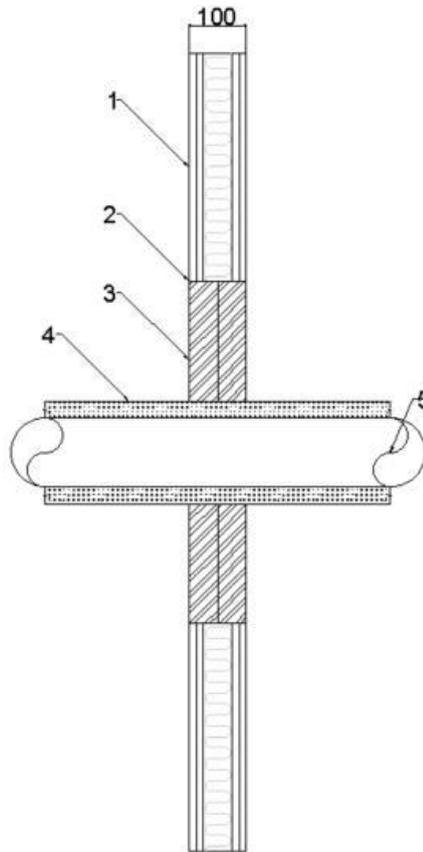
Service(s)	Classification
Steel or Copper Pipe 42-159mm Ø, 1.0mm – 14.2mm wall thickness. 25mm thick foil faced glassfibre insulation min. 30kg/m <sup>3</sup> (C/S)	<b>E 120 C/U</b> <b>EI 45 C/U</b>
Steel or Copper Pipe 42mm Ø, 1mm – 14.2mm wall thickness. 25mm thick foil faced glassfibre insulation min. 30kg/m <sup>3</sup> (C/S)	<b>E 120 C/U</b> <b>EI 60 C/U</b>

Permitted Pipe Diameter vs Pipe Wall Thickness as graph below.



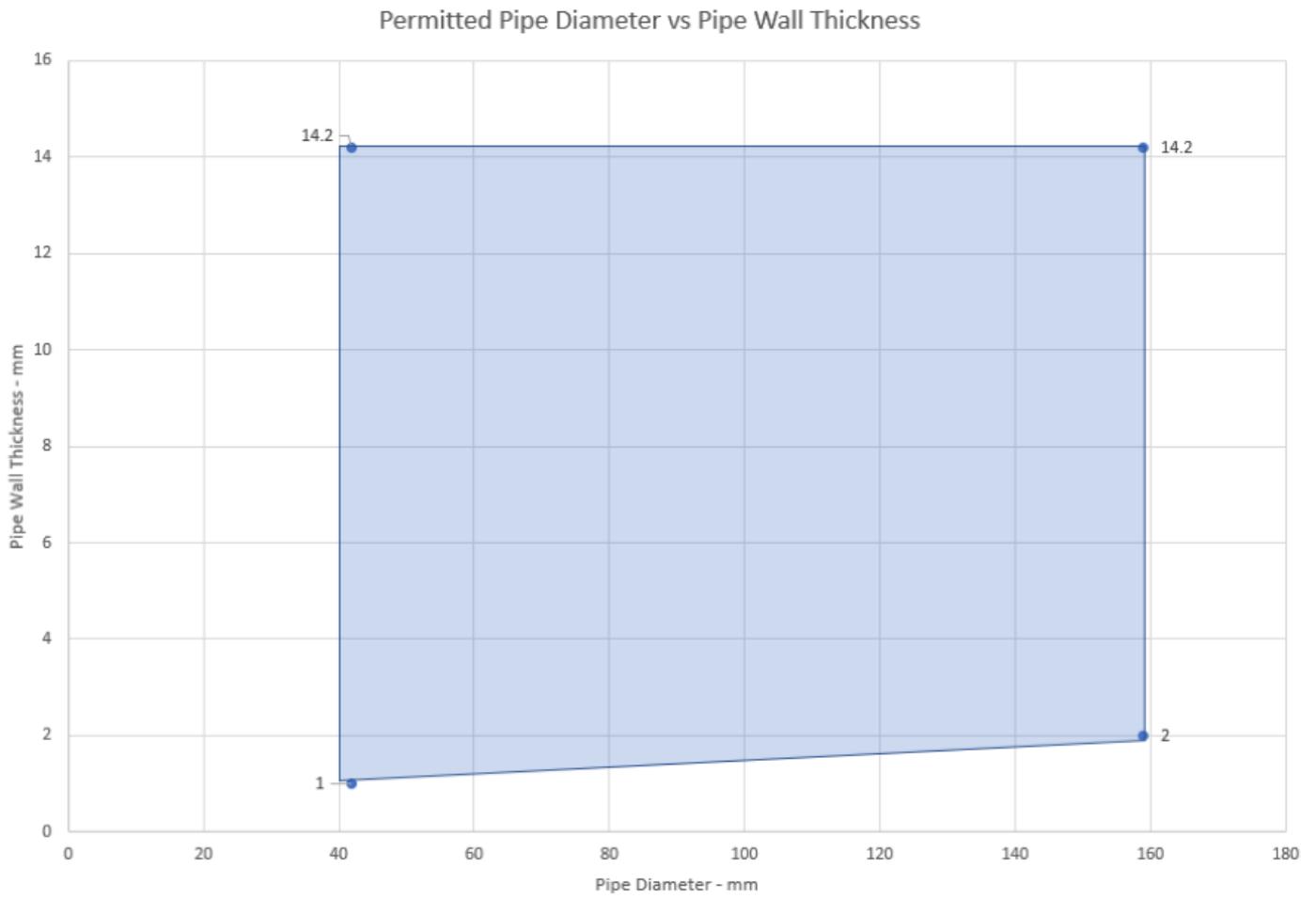
**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 2600mm wide x 2600mm high



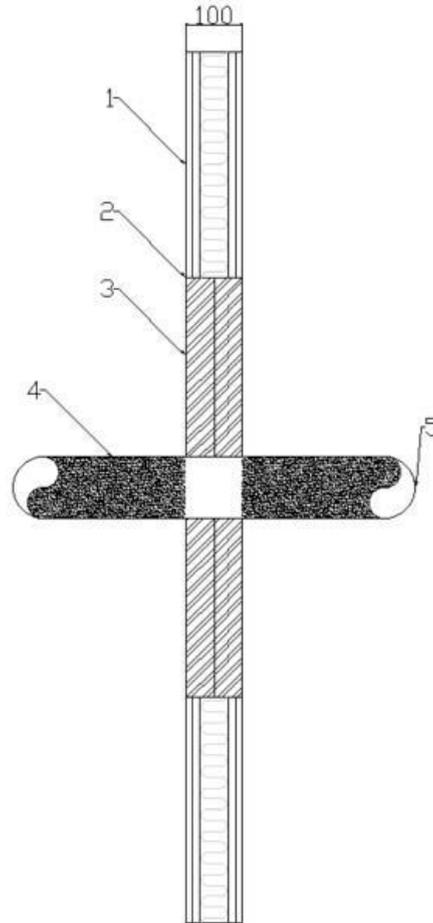
Service(s)	Classification
Steel or Copper Pipe 42-159mm Ø, 1.0mm – 14.2mm wall thickness. 25mm thick foil faced glassfibre insulation min. 30kg/m <sup>3</sup> (C/S)	<b>E 60 C/U</b> <b>EI 45 C/U</b>
Steel or Copper Pipe 42mm Ø, 1mm – 14.2mm wall thickness. 25mm thick foil faced glassfibre insulation min. 30kg/m <sup>3</sup> (C/S)	<b>E 60 C/U</b> <b>EI 60 C/U</b>

Permitted Pipe Diameter vs Pipe Wall Thickness as graph below.



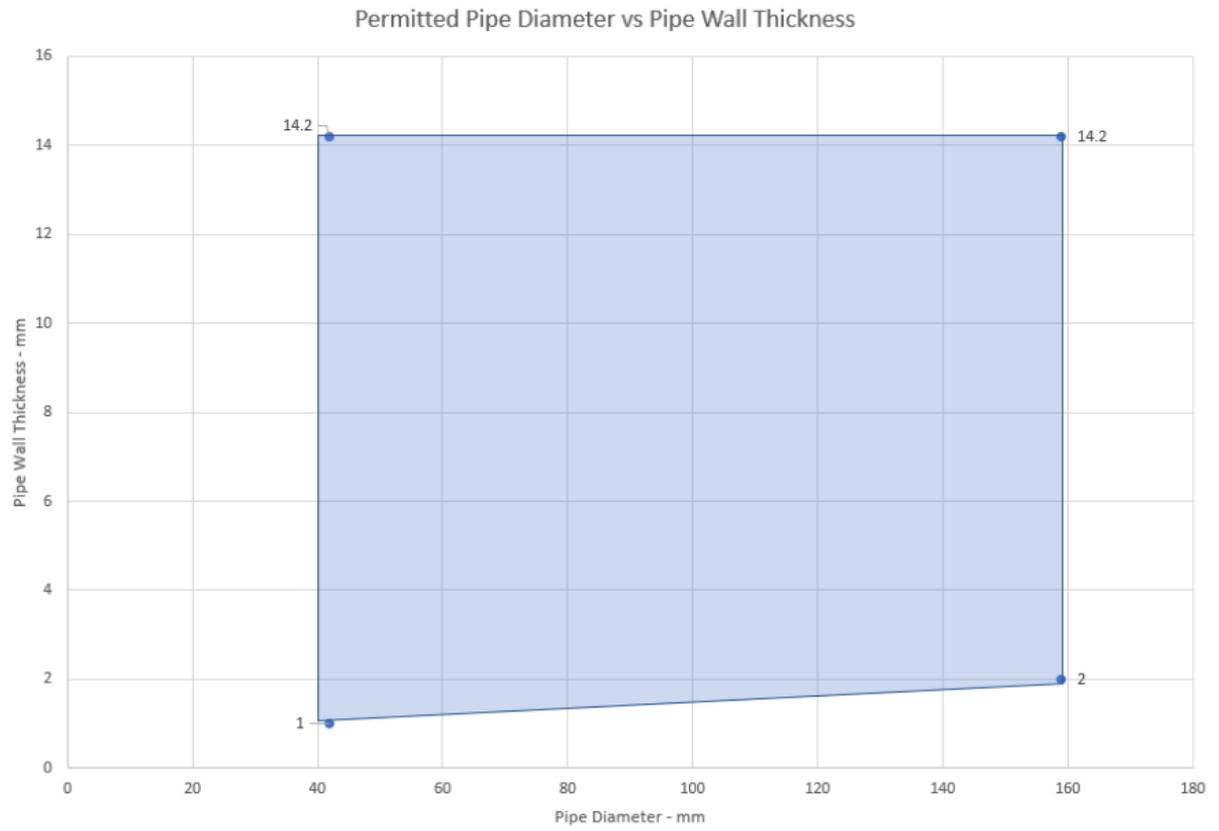
**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 730mm wide x 1200mm high



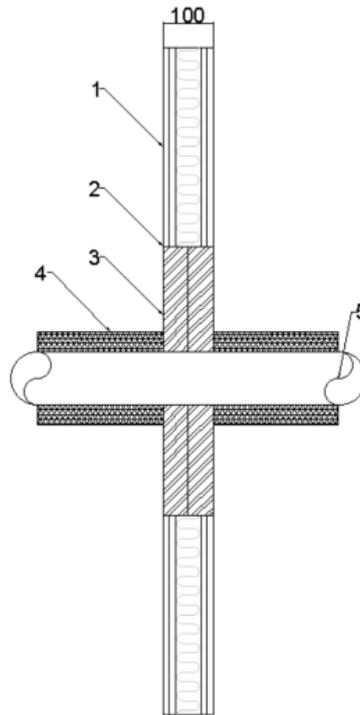
Service(s)	Classification
Steel or Copper Pipe 42-159mm Ø, 1.0mm – 14.2mm wall thickness 40mm thick foil faced stonewool insulation min. 40kg/m <sup>3</sup> (L/I 400mm)	<b>EI 45 C/U</b>
Steel 42-324mm Ø, 16mm wall thickness. 40mm thick foil faced stonewool insulation min. 40kg/m <sup>3</sup> (L/I 400mm)	<b>EI 45 C/U</b>
Steel 42-324mm Ø, 16mm wall thickness. 40mm thick foil faced stonewool insulation min. 40kg/m <sup>3</sup> (C/I)	<b>EI 60 C/U</b>
Steel or Copper Pipe 42mm Ø, 1.0mm – 14.2mm wall thickness PST coating along the penetration 2mm DFT (L/I 300mm)	<b>E 120 C/U</b> <b>EI 45 C/U</b>
Steel or Copper Pipe 42-159mm Ø, 1.0mm – 14.2mm wall thickness PST coating along the penetration 2mm DFT (L/I 300mm)	<b>E 120 C/U</b> <b>EI 20 C/U</b>
Steel 42-324mm Ø, 16mm wall thickness. 14.2mm wall thickness PST coating along the penetration 2mm DFT (L/I 300mm)	<b>E 120 C/U</b> <b>EI 45 C/U</b>

Permitted Pipe Diameter vs Pipe Wall Thickness as graph below.



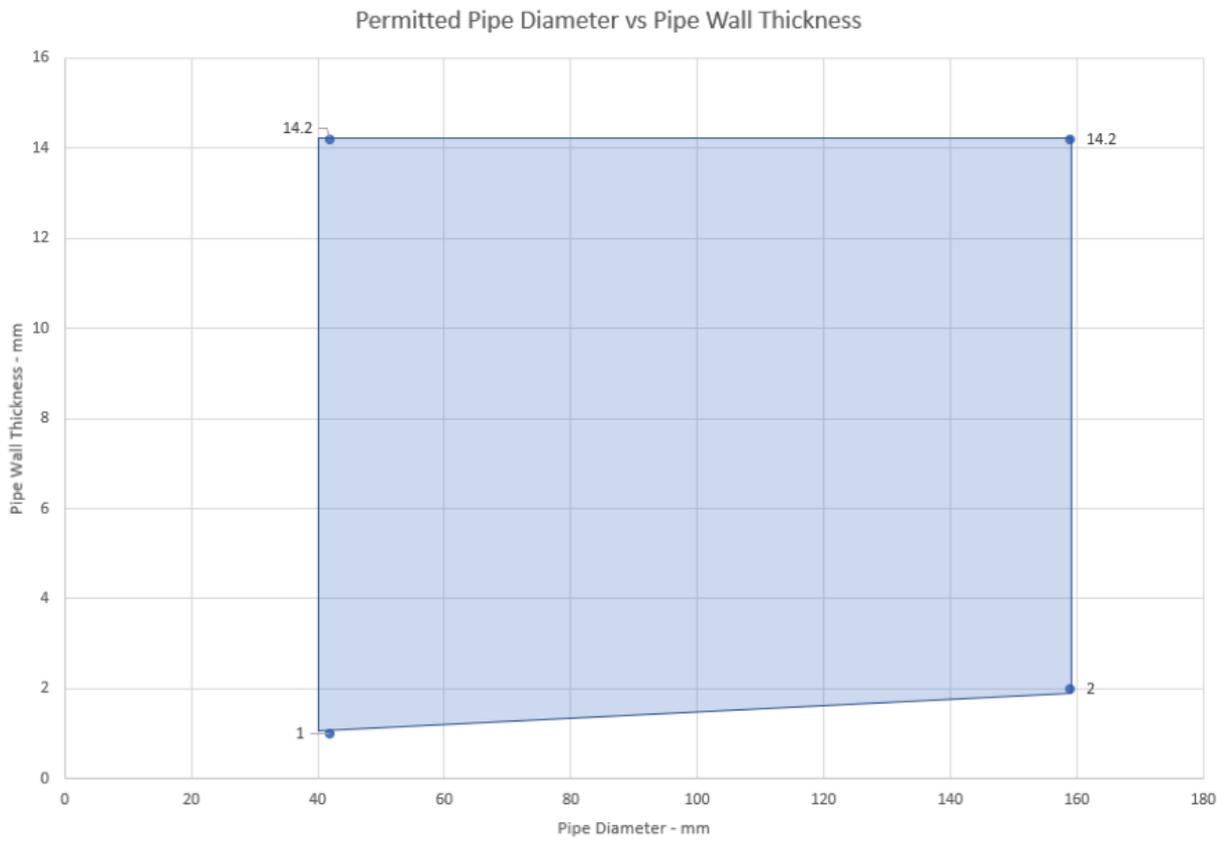
**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 2600mm wide x 2600mm high



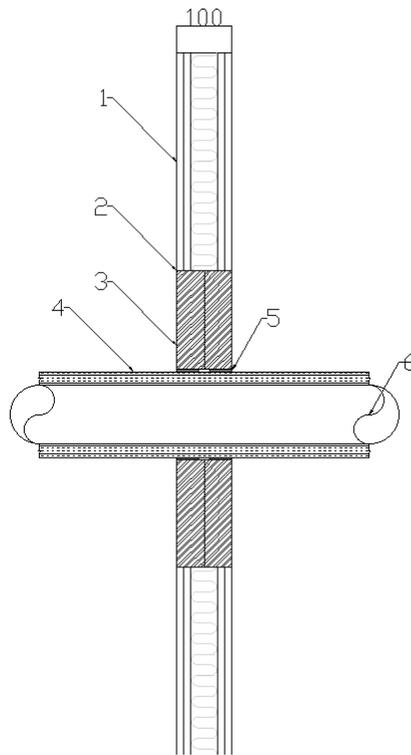
Service(s)	Classification
Steel or Copper Pipe 42-159mm Ø, 1.0mm – 14.2mm wall thickness 40mm thick foil faced stonewool insulation min. 40kg/m <sup>3</sup> (L/I 400mm)	<b>EI 45 C/U</b>
Steel 42-324mm Ø, 16mm wall thickness. 40mm thick foil faced stonewool insulation min. 40kg/m <sup>3</sup> (L/I 400mm)	<b>EI 45 C/U</b>
Steel 42-324mm Ø, 16mm wall thickness. 40mm thick foil faced stonewool insulation min. 40kg/m <sup>3</sup> (C/I)	<b>EI 60 C/U</b>
Steel or Copper Pipe 42mm Ø, 1.0mm – 14.2mm wall thickness PST coating along the penetration 2mm DFT (L/I 300mm)	<b>E 60 C/U</b> <b>EI 45 C/U</b>
Steel or Copper Pipe 42-159mm Ø, 1.0mm – 14.2mm wall thickness PST coating along the penetration 2mm DFT (L/I 300mm)	<b>E 60 C/U</b> <b>EI 20 C/U</b>
Steel 42-324mm Ø, 16mm wall thickness. 14.2mm wall thickness PST coating along the penetration 2mm DFT (L/I 300mm)	<b>E 60 C/U</b> <b>EI 45 C/U</b>

Permitted Pipe Diameter vs Pipe Wall Thickness as graph below.



**Construction details:**

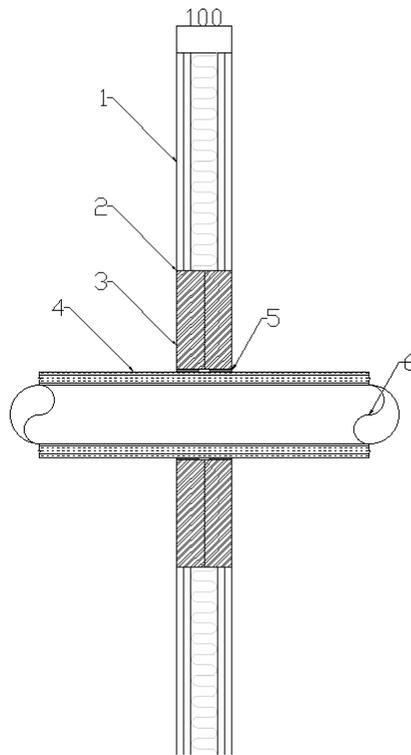
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 730mm wide x 1200mm high
- 2 x 2mm thick layers of FIREPRO® Intumescent Pipe Wrap Roll/FIREPRO® Intumescent Pipe Wrap CE installed both sides of the FIREPRO® Ablative Coated Batt
- Equivalent elastomeric pipe insulation classified B<sub>L</sub> – s2, d0 or better to EN 13501-1
- Equivalent Phenolic foam pipe insulation classified B<sub>L</sub> – s1, d0 or better to EN 13501-1



Service(s)	Classification
Steel or Copper Pipe 42-159mm Ø, 1.2mm – 14.2mm wall thickness. 13-25mm thick K Flex ST2 Insulation (C/S)	<b>E 120 C/U</b> <b>EI 60 C/U</b>
Steel or Copper Pipe 42mm Ø, 1 – 14.2mm wall thickness. 25-13mm thick K Flex ST2 insulation (C/S)	<b>E 120 C/U</b> <b>EI 90 C/U</b>
Steel or Copper Pipe 42-108mm Ø, 1.2 – 14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM3 insulation (C/S)	<b>E 120 C/U</b> <b>EI 60 C/U</b>
Steel or Copper Pipe 42mm Ø, 1–14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM insulation (C/S)	<b>E 120 C/U</b> <b>EI 90 C/U</b>
Steel or Copper Pipe 42mm Ø, 1.0–14.2mm wall thickness. 50mm thick glassfibre insulation (C/S)	<b>E 120 C/U</b> <b>EI 90 C/U</b>
Steel or Copper Pipe 42-159mm Ø, 1.2mm – 14.2mm wall thickness. 13-25mm thick K Flex ST2 Insulation (C/S)	<b>E 120 C/U</b> <b>EI 60 C/U</b>

**Construction details:**

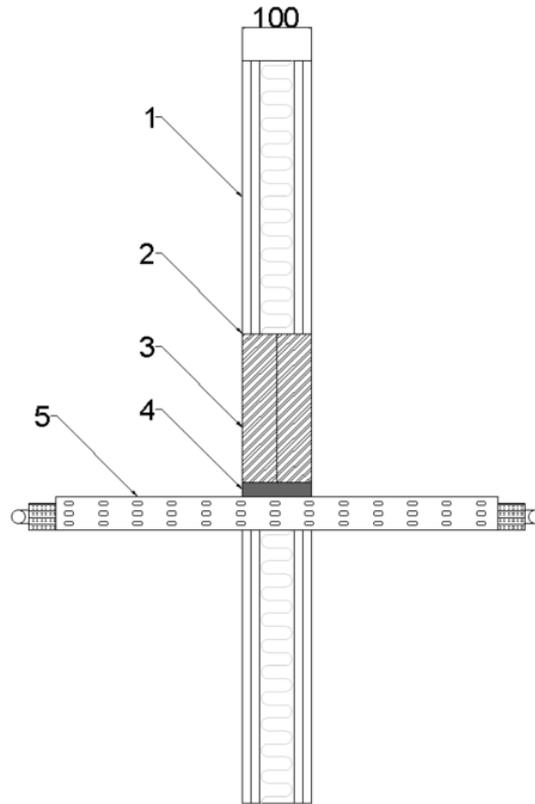
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 2600mm wide x 2600mm high
- 2 x 2mm thick layers of FIREPRO® Intumescent Pipe Wrap Roll/FIREPRO® Intumescent Pipe Wrap CE installed both sides of the FIREPRO® Ablative Coated Batt
- Equivalent elastomeric pipe insulation classified B<sub>L</sub> – s2, d0 or better to EN 13501-1
- Equivalent Phenolic foam pipe insulation classified B<sub>L</sub> – s1, d0 or better to EN 13501-1



Service(s)	Classification
Steel or Copper Pipe 42-159mm Ø, 1.2mm – 14.2mm wall thickness. 13-25mm thick K Flex ST2 Insulation (C/S)	<b>EI 60 C/U</b>
Steel or Copper Pipe 42mm Ø, 1 – 14.2mm wall thickness. 25-13mm thick K Flex ST2 insulation (C/S)	
Steel or Copper Pipe 42-108mm Ø, 1.2 – 14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM3 insulation (C/S)	
Steel or Copper Pipe 42mm Ø, 1–14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM insulation (C/S)	
Steel or Copper Pipe 42mm Ø, 1.0–14.2mm wall thickness. 50mm thick glassfibre insulation (C/S)	
Steel or Copper Pipe 42-159mm Ø, 1.2mm – 14.2mm wall thickness. 13-25mm thick K Flex ST2 Insulation (C/S)	

**Construction details:**

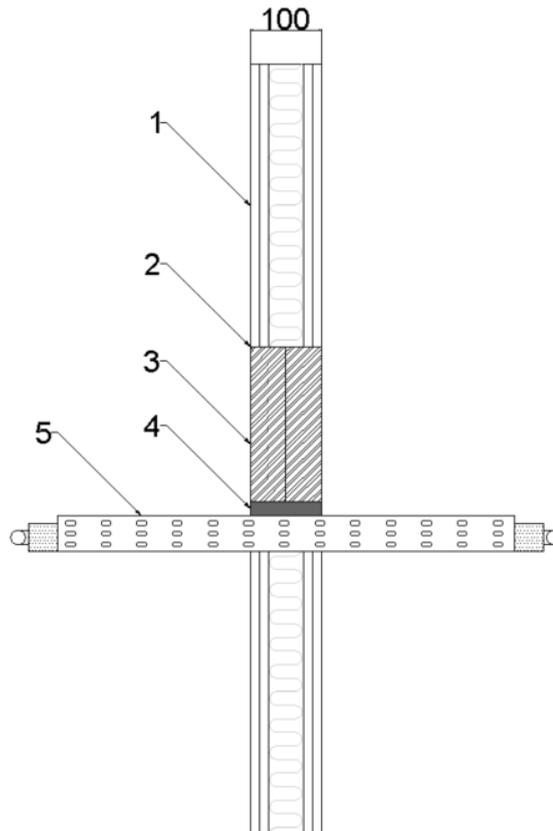
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 730mm wide x 1200mm high
- FIREPRO® High Expansion Intumescent Sealant 20mm annulus full 50mm depth of the FIREPRO® Ablative Coated Batt
- Equivalent elastomeric pipe insulation classified B<sub>L</sub> – s2, d0 or better to EN 13501-1



Service(s)	Classification
6 off Steel or Copper Pipe 22mm Ø, 0.9mm – 14.2mm wall thickness. 19mm thick Armaflex (L/S 400mm)	<b>EI 90 C/U</b>
500 mm cable tray	<b>E 90 C/U EI 15 C/U</b>

**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 2600mm wide x 2600mm high
- Zero distance to bottom of seal
- FIREPRO® High Expansion Intumescent Sealant 20mm annulus full 50mm depth of the FIREPRO® Ablative Coated Batt
- Equivalent elastomeric pipe insulation classified B<sub>L</sub> – s2, d0 or better to EN 13501-1



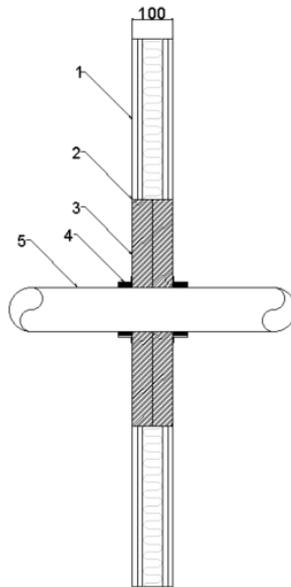
Service(s)	Classification
6 off Steel or Copper Pipe 22mm Ø, 0.9mm – 14.2mm wall thickness. 19mm thick Armaflex (L/S 400mm)	<b>EI 60 C/U</b>
500 mm cable tray	<b>E 60 EI 15</b>

## B9 FIREPRO® Ablative Coated Batt Penetration Seal in Flexible or Rigid Walls min. 100 mm thick

### B9.1 Double Layer (50mm) FIREPRO® Ablative Coated Batt Penetration Seal B 9.1.1 Plastic Pipes

#### Construction details:

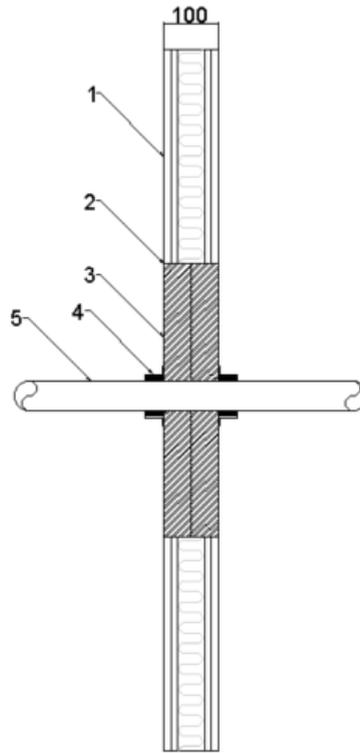
- Double layer of FIREPRO® Ablative Coated Batt (50mm) Plastic Pipes
- Max. Aperture size 730mm wide x 1200mm high
- Penetrations positioned as per option 1 or 2 below, 0 mm distance between services and 50 mm to edge of seal.
- Collars secured both faces of the substrate utilizing 80mm long steel pig tail screw through to FIREPRO® Ablative Coated Batt



Penetration Specification	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 1.8mm wall thickness	32 mm	<b>EI 120 U/C</b>
PVC Pipe 40mm Ø, 1.8mm wall thickness	40 mm	
PVC Pipe 50mm Ø, 1.8mm wall thickness	50 mm	
PVC Pipe 55mm Ø, 1.8-2.3mm wall thickness	55 mm	
PVC Pipe 63mm Ø, 3.1-4.8mm wall thickness	63 mm	
PVC Pipe 75mm Ø, 3.1-4.8mm wall thickness	75 mm	
PVC Pipe 82mm Ø, 4.2-7.4mm wall thickness	82 mm	
PVC Pipe 90mm Ø, 4.2-7.4mm wall thickness	90 mm	
PVC Pipe 100mm Ø, 4.2-7.4mm wall thickness	100 mm	
PVC Pipe 110mm Ø, 6.1-7.5mm wall thickness	110 mm	

**Construction details:**

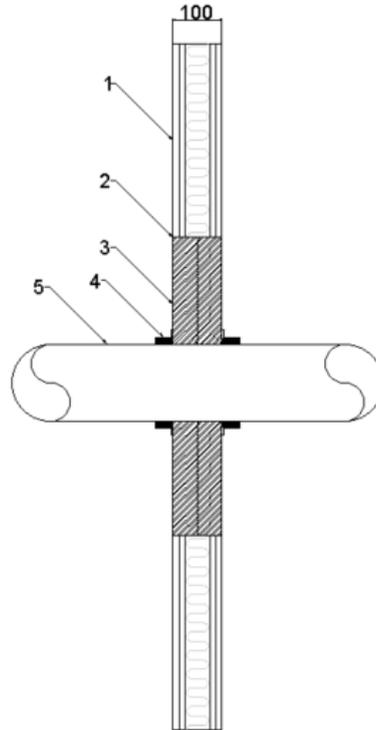
- Double layer of FIREPRO® Ablative Coated Batt (50mm) Plastic Pipes
- Max. Aperture size 2600mm wide x 2600mm high
- Penetrations positioned as per option 1 or 2 below, 0 mm distance between services and 50 mm to edge of seal.
- Collars secured both faces of the substrate utilizing 80mm long steel pig tail screw through to FIREPRO® Ablative Coated Batt



Penetration Specification	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 1.8mm wall thickness	32 mm	<b>EI 60 U/C</b>
PVC Pipe 40mm Ø, 1.8mm wall thickness	40 mm	
PVC Pipe 50mm Ø, 1.8mm wall thickness	50 mm	
PVC Pipe 55mm Ø, 1.8-2.3mm wall thickness	55 mm	
PVC Pipe 63mm Ø, 3.1-4.8mm wall thickness	63 mm	
PVC Pipe 75mm Ø, 3.1-4.8mm wall thickness	75 mm	
PVC Pipe 82mm Ø, 4.2-7.4mm wall thickness	82 mm	
PVC Pipe 90mm Ø, 4.2-7.4mm wall thickness	90 mm	
PVC Pipe 100mm Ø, 4.2-7.4mm wall thickness	100 mm	
PVC Pipe 110mm Ø, 4.2-7.4mm wall thickness	110 mm	
PVC Pipe 125mm Ø, 6mm wall thickness	125 mm	
PVC Pipe 140mm Ø, 6.1-7.5mm wall thickness	140 mm	
PVC Pipe 160mm Ø, 6.2-9.5mm wall thickness	160 mm	

**Construction details:**

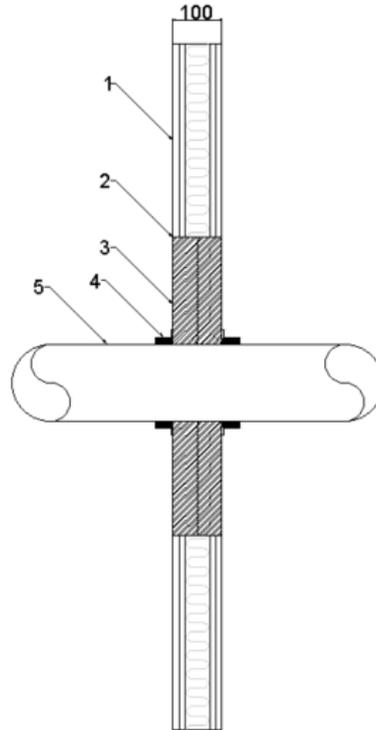
- Double layer of FIREPRO® Ablative Coated Batt (50mm) Plastic Pipes
- Max. Aperture size 730mm wide x 1200mm high
- Penetrations positioned as per option 1 or 2 below, 0 mm distance between services and 50 mm to edge of seal.
- Collars secured both faces of the substrate utilizing 80mm long steel pig tail screw through to FIREPRO® Ablative Coated Batt



Penetration Specification	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 2.9mm wall thickness	32 mm	<b>EI 120 U/C</b>
PVC Pipe 40mm Ø, 2.9mm wall thickness	40 mm	
PVC Pipe 50mm Ø, 2.9mm wall thickness	50 mm	
PVC Pipe 55mm Ø, 2.9-4.4mm wall thickness	55 mm	
PVC Pipe 63mm Ø, 2.9-4.4mm wall thickness	63 mm	
PVC Pipe 75mm Ø, 2.8-6.7mm wall thickness	75 mm	
PVC Pipe 82mm Ø, 2.8-6.7mm wall thickness	82 mm	
PVC Pipe 90mm Ø, 2.7-10mm wall thickness	90 mm	
PVC Pipe 100mm Ø, 2.7-10mm wall thickness	100 mm	
PVC Pipe 110mm Ø, 2.7-10mm wall thickness	110 mm	
PVC Pipe 125mm Ø, 3.1mm wall thickness	125 mm	
PVC Pipe 140mm Ø, 3.5-8mm wall thickness	140 mm	
PVC Pipe 160mm Ø, 4-14.6mm wall thickness	160 mm	

**Construction details:**

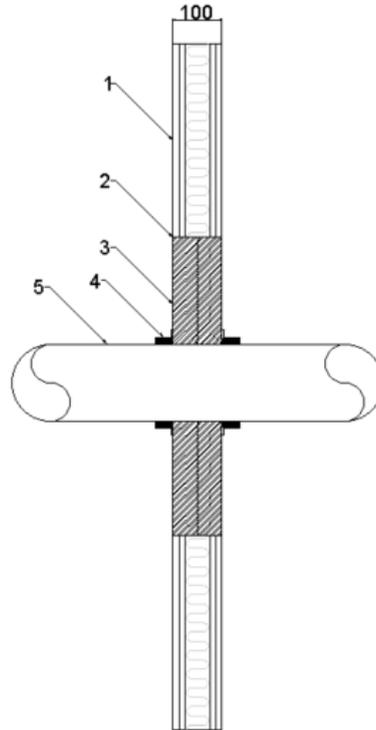
- Double layer of FIREPRO® Ablative Coated Batt (50mm) Plastic Pipes
- Max. Aperture size 2600mm wide x 2600mm high
- Penetrations positioned as per option 1 or 2 below, 0 mm distance between services and 50 mm to edge of seal.
- Collars secured both faces of the substrate utilizing 80mm long steel pig tail screw through to FIREPRO® Ablative Coated Batt



Penetration Specification	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 2.9mm wall thickness	32 mm	<b>EI 60 U/C</b>
PVC Pipe 40mm Ø, 2.9mm wall thickness	40 mm	
PVC Pipe 50mm Ø, 2.9mm wall thickness	50 mm	
PVC Pipe 55mm Ø, 2.9-4.4mm wall thickness	55 mm	
PVC Pipe 63mm Ø, 2.9-4.4mm wall thickness	63 mm	
PVC Pipe 75mm Ø, 2.8-6.7mm wall thickness	75 mm	
PVC Pipe 82mm Ø, 2.8-6.7mm wall thickness	82 mm	
PVC Pipe 90mm Ø, 2.7-10mm wall thickness	90 mm	
PVC Pipe 100mm Ø, 2.7-10mm wall thickness	100 mm	
PVC Pipe 110mm Ø, 2.7-10mm wall thickness	110 mm	
PVC Pipe 125mm Ø, 3.1mm wall thickness	125 mm	
PVC Pipe 140mm Ø, 3.5-8mm wall thickness	140 mm	
PVC Pipe 160mm Ø, 4-14.6mm wall thickness	160 mm	

**Construction details:**

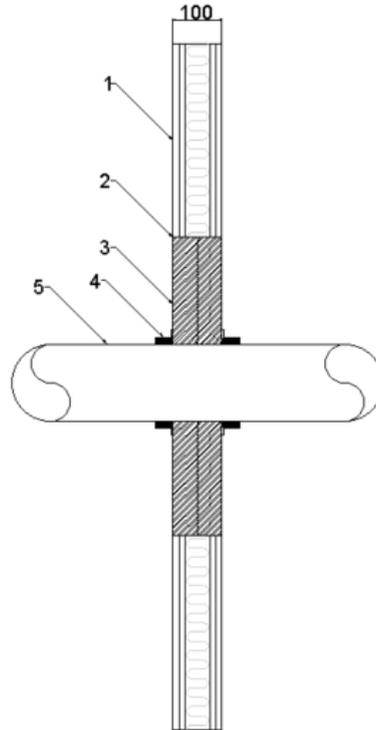
- Double layer of FIREPRO® Ablative Coated Batt (50mm) Plastic Pipes
- Max. Aperture size 730mm wide x 1200mm high
- Penetrations positioned as per option 1 or 2 below, 0 mm distance between services and 50 mm to edge of seal.
- Collars secured both faces of the substrate utilizing 80mm long steel pig tail screw through to FIREPRO® Ablative Coated Batt



Penetration Specification	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 2.9mm wall thickness	32 mm	<b>EI 120 U/C</b>
PVC Pipe 40mm Ø, 2.9mm wall thickness	40 mm	
PVC Pipe 50mm Ø, 2.9mm wall thickness	50 mm	
PVC Pipe 55mm Ø, 2.9-4.4mm wall thickness	55 mm	
PVC Pipe 63mm Ø, 2.9-4.4mm wall thickness	63 mm	
PVC Pipe 75mm Ø, 2.8-6.7mm wall thickness	75 mm	
PVC Pipe 82mm Ø, 2.8-6.7mm wall thickness	82 mm	
PVC Pipe 90mm Ø, 2.7-10mm wall thickness	90 mm	
PVC Pipe 100mm Ø, 2.7-10mm wall thickness	100 mm	
PVC Pipe 110mm Ø, 2.7-10mm wall thickness	110 mm	
PVC Pipe 125mm Ø, 3.1mm wall thickness	125 mm	
PVC Pipe 140mm Ø, 3.5-8mm wall thickness	140 mm	
PVC Pipe 160mm Ø, 4-14.6mm wall thickness	160 mm	

**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) Plastic Pipes
- Max. Aperture size 2600mm wide x 2600mm high
- Penetrations positioned as per option 1 or 2 below, 0 mm distance between services and 50 mm to edge of seal.
- Collars secured both faces of the substrate utilizing 80mm long steel pig tail screw through to FIREPRO® Ablative Coated Batt



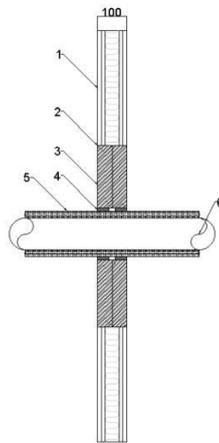
Penetration Specification	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 2.9mm wall thickness	32 mm	<b>EI 60 U/C</b>
PVC Pipe 40mm Ø, 2.9mm wall thickness	40 mm	
PVC Pipe 50mm Ø, 2.9mm wall thickness	50 mm	
PVC Pipe 55mm Ø, 2.9-4.4mm wall thickness	55 mm	
PVC Pipe 63mm Ø, 2.9-4.4mm wall thickness	63 mm	
PVC Pipe 75mm Ø, 2.8-6.7mm wall thickness	75 mm	
PVC Pipe 82mm Ø, 2.8-6.7mm wall thickness	82 mm	
PVC Pipe 90mm Ø, 2.7-10mm wall thickness	90 mm	
PVC Pipe 100mm Ø, 2.7-10mm wall thickness	100 mm	
PVC Pipe 110mm Ø, 2.7-10mm wall thickness	110 mm	
PVC Pipe 125mm Ø, 3.1mm wall thickness	125 mm	
PVC Pipe 140mm Ø, 3.5-8mm wall thickness	140 mm	
PVC Pipe 160mm Ø, 4-14.6mm wall thickness	160 mm	

## B10 FIREPRO® Ablative Coated Batt Penetration Seal in Flexible or Rigid Walls min. 100 mm thick

### B10.1 Double Layer (50mm) FIREPRO® Ablative Coated Batt Penetration Seal B 10.1.1 Insulated Plastic Pipes

#### Construction details:

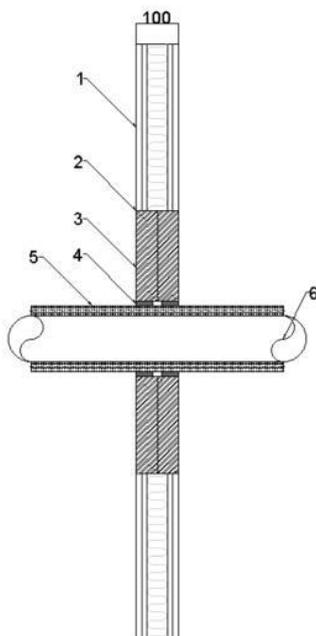
- Double layer of FIREPRO® Ablative Coated Batt (50mm) Plastic Pipes
- Max. Aperture size 730mm wide x 1200mm high
- Penetrations positioned as per option 1 or 2 below, 0 mm distance between services and 50 mm to edge of seal.
- FIREPRO® Intumescent Pipe Wrap Roll/FIREPRO® Intumescent Pipe Wrap CE secured internally within both faces of the FIREPRO® Ablative Coated Batt
- Equivalent elastomeric pipe insulation classified B<sub>L</sub> – s2, d0 or better to EN 13501-1
- Equivalent Phenolic foam pipe insulation classified B<sub>L</sub> – s1, d0 or better to EN 13501-1



Penetration Specification	FIREPRO® Intumescent Pipe Wrap Roll/FIREPRO® Intumescent Pipe Wrap CE Ref	Classification
PVC Pipe 40mm Ø, 1.9mm wall thickness. 25 mm thick Kingspan Kooltherm FM insulation (C/S)	3x2 mm	<b>E 120 U/C</b> <b>EI 90 U/C</b>
PVC Pipe 40mm Ø, 3mm wall thickness. 15 mm thick Kingspan Kooltherm FM insulation (C/S)	3x2 mm	
PVC Pipe 110mm Ø, 4.2mm wall thickness. 25 mm thick Kingspan Kooltherm FM insulation (C/S)	5x2 mm	<b>EI 120 U/C</b>
PVC Pipe 110mm Ø, 6.6mm wall thickness. 20 mm thick Kingspan Kooltherm FM insulation (C/S)	5x2 mm	<b>E 120 U/C</b> <b>EI 90 U/C</b>
PVC Pipe 40mm Ø, 1.9mm wall thickness. 32 mm thick Armacell Armflex Class O (C/S)	3x2 mm	<b>EI 120 U/C</b>
PVC Pipe 40mm Ø, 3mm wall thickness. 9 mm thick Armacell Armflex Class O (C/S)	3x2 mm	
PVC Pipe 110mm Ø, 4.2mm wall thickness. 32 mm thick Armacell Armflex Class O (C/S)	5x2 mm	<b>EI 120 U/C</b>
PVC Pipe 110mm Ø, 6.6mm wall thickness. 13mm thick Armacell Armflex Class O (C/S)	5x2 mm	<b>EI 120 U/C</b>

**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) Plastic Pipes
- Max. Aperture size 2600mm wide x 2600mm high
- Penetrations positioned as per option 1 or 2 below, 0 mm distance between services and 50 mm to edge of seal.
- FIREPRO® Intumescent Pipe Wrap Roll/FIREPRO® Intumescent Pipe Wrap CE secured internally within both faces of the FIREPRO® Ablative Coated Batt
- Equivalent elastomeric pipe insulation classified B<sub>L</sub> – s2, d0 or better to EN 13501-1
- Equivalent Phenolic foam pipe insulation classified B<sub>L</sub> – s1, d0 or better to EN 13501-1



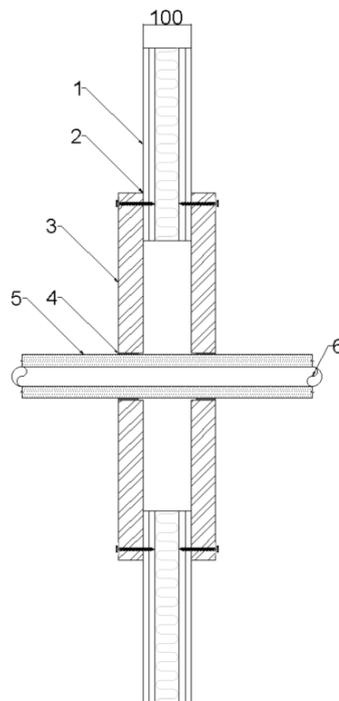
Penetration Specification	FIREPRO® Intumescent Pipe Wrap Roll/FIREPRO® Intumescent Pipe Wrap CE Ref	Classification
PVC Pipe 40mm Ø, 1.9mm wall thickness. 25 mm thick Kingspan Kooltherm FM insulation (C/S)	3x2 mm	<b>EI 60 U/C</b>
PVC Pipe 40mm Ø, 3mm wall thickness. 15 mm thick Kingspan Kooltherm FM insulation (C/S)	3x2 mm	
PVC Pipe 110mm Ø, 4.2mm wall thickness. 25 mm thick Kingspan Kooltherm FM insulation (C/S)	5x2 mm	
PVC Pipe 110mm Ø, 6.6mm wall thickness. 20 mm thick Kingspan Kooltherm FM insulation (C/S)	5x2 mm	
PVC Pipe 40mm Ø, 1.9mm wall thickness. 32 mm thick Armacell Armflex Class O (C/S)	3x2 mm	
PVC Pipe 40mm Ø, 3mm wall thickness. 9 mm thick Armacell Armflex Class O (C/S)	3x2 mm	
PVC Pipe 110mm Ø, 4.2mm wall thickness. 32 mm thick Armacell Armflex Class O (C/S)	5x2 mm	
PVC Pipe 110mm Ø, 6.6mm wall thickness. 13mm thick Armacell Armflex Class O (C/S)	5x2 mm	

## B11 FIREPRO® Ablative Coated Batt Penetration Seal in Flexible or Rigid Walls min. 100 mm thick

B11.1 Single Layer Pattress (50mm) FIREPRO® Ablative Coated Batt  
Penetration Seal B 11.1.1 Insulated Metallic Pipes

### Construction details:

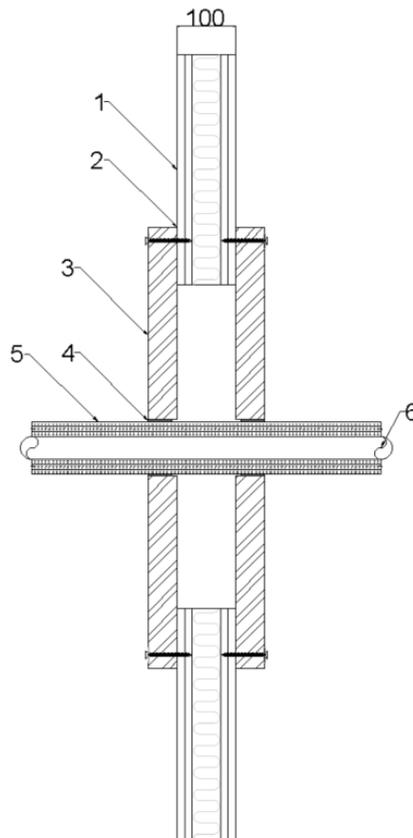
- Single layer of FIREPRO® Ablative Coated Batt (50mm) Single layer pattress
- Max. Aperture size 730mm wide x 1200mm high
- Pattress installation of FIREPRO® Ablative Coated Batt.
- The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm.
- Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- 2 x 2mm thick layers of FIREPRO® Intumescent Pipe Wrap Roll/FIREPRO® Intumescent Pipe Wrap CE installed both sides of the substrate within the pattress installation.
- Equivalent elastomeric pipe insulation classified B<sub>L</sub> – s2, d0 or better to EN 13501-1
- Equivalent Phenolic foam pipe insulation classified B<sub>L</sub> – s1, d0 or better to EN 13501-1



Service(s)	Classification
Steel or Copper Pipe 42-159mm Ø, 1.2mm – 14.2mm wall thickness. 13-25mm thick K Flex ST Insulation (C/S)	<b>E 120 C/U</b> <b>EI 60 C/U</b>
Steel or Copper Pipe 42mm Ø, 1.2 – 14.2mm wall thickness. 13-25mm thick K Flex ST insulation (C/S)	<b>E 120 C/U</b> <b>EI 90 C/U</b>
Steel or Copper Pipe 42-108mm Ø, 1.2 – 14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM insulation (C/S)	<b>E 120 C/U</b> <b>EI 60 C/U</b>
Steel or Copper Pipe 42mm Ø, 1.2–14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM insulation (C/S)	<b>E 120 C/U</b> <b>EI 90 C/U</b>
Steel or Copper Pipe 42mm Ø, 1.2–14.2mm wall thickness. 50mm thick glassfibre insulation min. 30kg/m <sup>3</sup> (C/S)	<b>E 120 C/U</b> <b>EI 90 C/U</b>

**Construction details:**

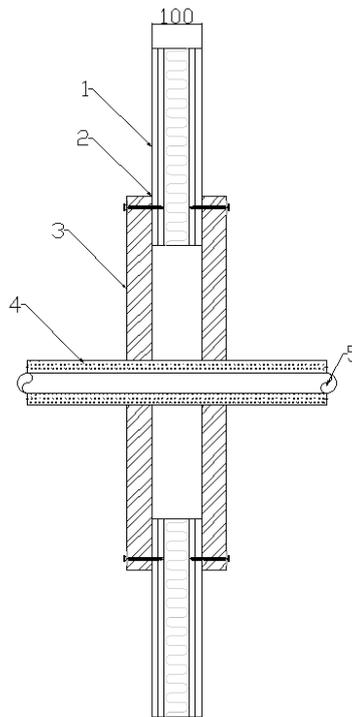
- Single layer of FIREPRO® Ablative Coated Batt (50mm) Single layer pattress
- Max. Aperture size 2600mm wide x 2600mm high
- Pattress installation of FIREPRO® Ablative Coated Batt.
- The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm.
- Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- 2 x 2mm thick layers of FIREPRO® Intumescent Pipe Wrap Roll/FIREPRO® Intumescent Pipe Wrap CE installed both sides of the substrate within the pattress installation.
- Equivalent elastomeric pipe insulation classified B<sub>L</sub> – s2, d0 or better to EN 13501-1
- Equivalent Phenolic foam pipe insulation classified B<sub>L</sub> – s1, d0 or better to EN 13501-1



Service(s)	Classification
Steel or Copper Pipe 42-159mm Ø, 1.2mm – 14.2mm wall thickness. 13-25mm thick K Flex ST Insulation (C/S)	<b>EI 60 C/U</b>
Steel or Copper Pipe 42mm Ø, 1.2 – 14.2mm wall thickness. 13-25mm thick K Flex ST insulation (C/S)	
Steel or Copper Pipe 42-108mm Ø, 1.2 – 14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM insulation (C/S)	
Steel or Copper Pipe 42mm Ø, 1.2–14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM insulation (C/S)	
Steel or Copper Pipe 42mm Ø, 1.2–14.2mm wall thickness. 50mm thick glassfibre insulation min. 30kg/m <sup>3</sup> (C/S)	

**Construction details:**

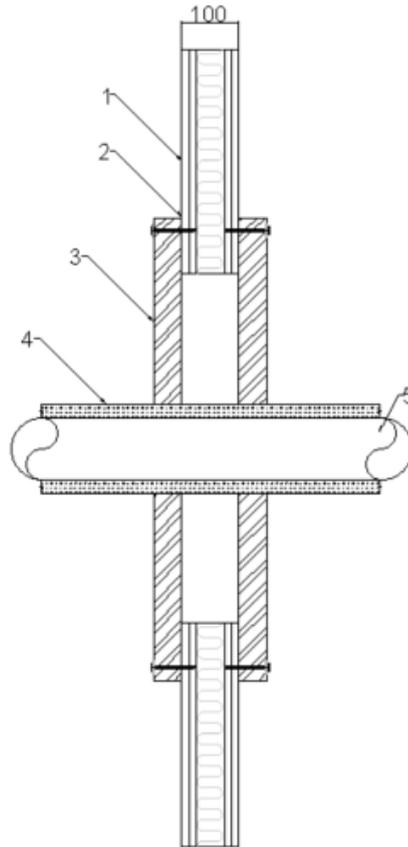
- Single layer of FIREPRO® Ablative Coated Batt pattress installed both sides of the wall.
- Max. Aperture size 730mm wide x 1200mm high
- pattress installation of FIREPRO® Ablative Coated Batt.
- The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm.
- Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.



Service(s)	Classification
Steel or Copper Pipe 42-159mm Ø, 2mm – 14.2mm 25 mm thick foil faced glassfiber insulation min 30 kg/m <sup>3</sup>	<b>E 120 C/U</b> <b>EI 45 C/U</b>
Steel or Copper Pipe 42mm Ø, 1mm – 14.2mm wall thickness. 25mm thick foil faced glassfiber insulation min. 30kg/m <sup>3</sup> (C/S)	<b>E 120 C/U</b> <b>EI 60 C/U</b>

**Construction details:**

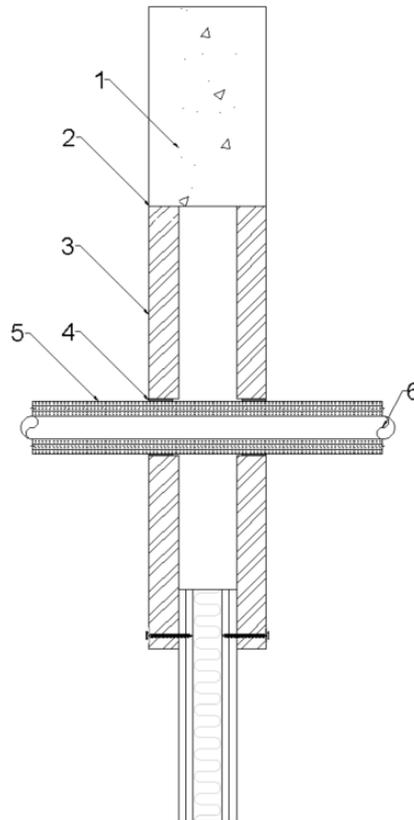
- Single layer of FIREPRO® Ablative Coated Batt (50mm) Single layer pattress
- Max. Aperture size 2600mm wide x 2600mm high
- pattress installation of FIREPRO® Ablative Coated Batt.
- The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm.
- Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.



Service(s)	Classification
Steel or Copper Pipe 42-159mm Ø, 2mm – 14.2mm 25 mm thick foil faced glassfibre insulation min 30 kg/m <sup>3</sup>	<b>E 60 C/U</b> <b>EI 45 C/U</b>
Steel or Copper Pipe 42mm Ø, 1mm – 14.2mm wall thickness. 25mm thick foil faced glassfibre insulation min. 30kg/m <sup>3</sup> (C/S)	<b>E 60 C/U</b> <b>EI 60 C/U</b>

**Construction details:**

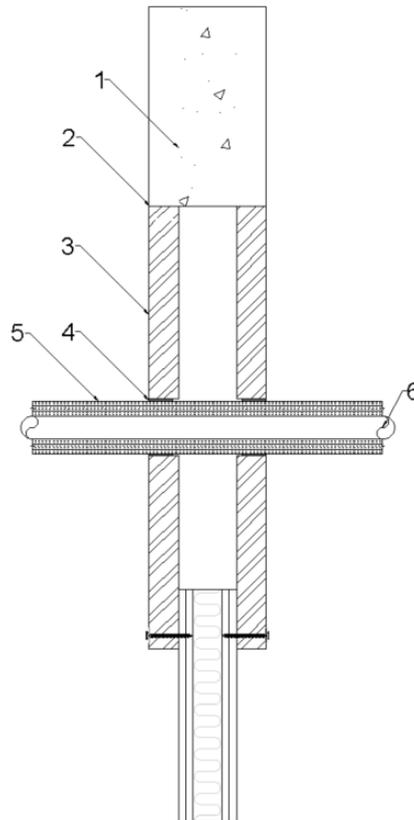
- Single layer of FIREPRO® Ablative Coated Batt (50mm) Single layer pattress
- Max. Aperture size 730mm wide x 1200mm high
- 30 mm overlap pattress installed flush to soffit.
- The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm.
- Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- 2x 2mm thick layers of FIREPRO® Intumescent Pipe Wrap Roll/FIREPRO® Intumescent Pipe Wrap CE installed both sides of the substrate within the pattress installation.
- Equivalent Phenolic foam pipe insulation classified B<sub>L</sub> – s1, d0 or better to EN 13501-1



Service(s)	Classification
Steel or Copper Pipe 42mm Ø, 1.0mm – 14.2mm wall thickness. 50mm thick Kingspan (C/S 400mm)	<b>E 60 C/U</b> <b>EI 45 C/U</b>

**Construction details:**

- Single layer of FIREPRO® Ablative Coated Batt (50mm) Single layer pattress
- Max. Aperture size 2600mm wide x 2600mm high
- 30 mm overlap pattress installed flush to soffit.
- The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm.
- Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- 2x 2mm thick layers of FIREPRO® Intumescent Pipe Wrap Roll/FIREPRO® Intumescent Pipe Wrap CE installed both sides of the substrate within the pattress installation.
- Equivalent Phenolic foam pipe insulation classified B<sub>L</sub> – s1, d0 or better to EN 13501-1



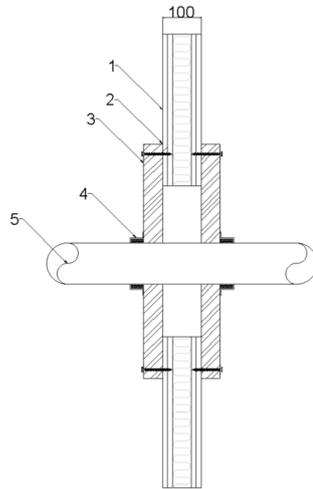
Service(s)	Classification
Steel or Copper Pipe 42mm Ø, 1.0mm – 14.2mm wall thickness. 50mm thick Kingspan (C/S 400mm)	<b>EI 60 C/U</b>

## B12 FIREPRO® Ablative Coated Batt Penetration Seal in Flexible or Rigid Walls min. 100 mm thick

### B12.1 Single Layer Pattress (50mm) FIREPRO® Ablative Coated Batt Penetration Seal B 12.1.1 Plastic Pipes

#### Construction details:

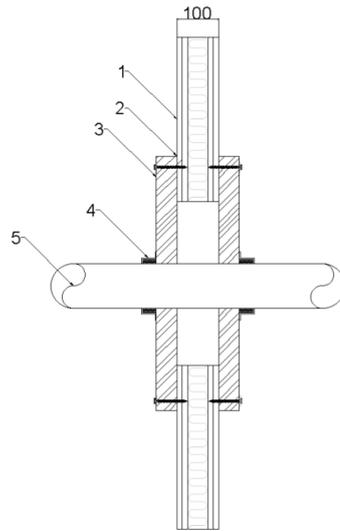
- Single layer of FIREPRO® Ablative Coated Batt (50mm) Plastic Pipes
- Max. Aperture size 2600mm wide x 2600mm high
- Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal.
- pattress installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- Collars secured both faces of the substrate utilizing 80mm long pig tail screw through to the FIREPRO® Ablative Coated Batt



Penetration Specification	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 1.8mm wall thickness	32 mm	<b>EI 60 U/C</b>
PVC Pipe 40mm Ø, 1.8mm wall thickness	40 mm	
PVC Pipe 50mm Ø, 1.8mm wall thickness	50 mm	
PVC Pipe 55mm Ø, 1.8-2.3mm wall thickness	55 mm	
PVC Pipe 63mm Ø, 2.3-3mm wall thickness	63 mm	
PVC Pipe 75mm Ø, 3.1-4.8mm wall thickness	75 mm	
PVC Pipe 82mm Ø, 3.1-4.8mm wall thickness	82 mm	
PVC Pipe 90mm Ø, 4.2-7.4mm wall thickness	90 mm	
PVC Pipe 100mm Ø, 4.2-7.4mm wall thickness	100 mm	
PVC Pipe 110mm Ø, 4.2-7.4mm wall thickness	110 mm	
PVC Pipe 125mm Ø, 6mm wall thickness	125 mm	
PVC Pipe 140mm Ø, 6.1-7.5mm wall thickness	140 mm	
PVC Pipe 140mm Ø, 6.2-9.5mm wall thickness	160 mm	

**Construction details:**

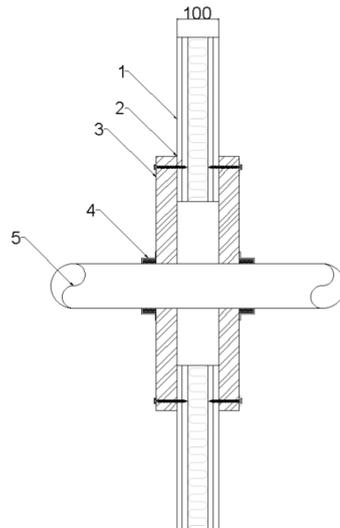
- Single layer of FIREPRO® Ablative Coated Batt (50mm) Plastic Pipes
- Max. Aperture size 730mm wide x 1200mm high
- Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal.
- pattern installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- Collars secured both faces of the substrate utilizing 80mm long pig tail screw through to the FIREPRO® Ablative Coated Batt



Penetration Specification	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 1.8mm wall thickness	32 mm	<b>EI 120 U/C</b>
PVC Pipe 40mm Ø, 1.8mm wall thickness	40 mm	
PVC Pipe 50mm Ø, 1.8mm wall thickness	50 mm	
PVC Pipe 55mm Ø, 1.8-2.3mm wall thickness	55 mm	
PVC Pipe 63mm Ø, 2.3-3mm wall thickness	63 mm	
PVC Pipe 75mm Ø, 3.1-4.8mm wall thickness	75 mm	
PVC Pipe 82mm Ø, 3.1-4.8mm wall thickness	82 mm	
PVC Pipe 90mm Ø, 4.2-7.4mm wall thickness	90 mm	
PVC Pipe 100mm Ø, 4.2-7.4mm wall thickness	100 mm	
PVC Pipe 110mm Ø, 4.2-7.4mm wall thickness	110 mm	
PVC Pipe 125mm Ø, 6mm wall thickness	125 mm	
PVC Pipe 140mm Ø, 6.1-7.5mm wall thickness	140 mm	
PVC Pipe 140mm Ø, 6.2-9.5mm wall thickness	160 mm	

**Construction details:**

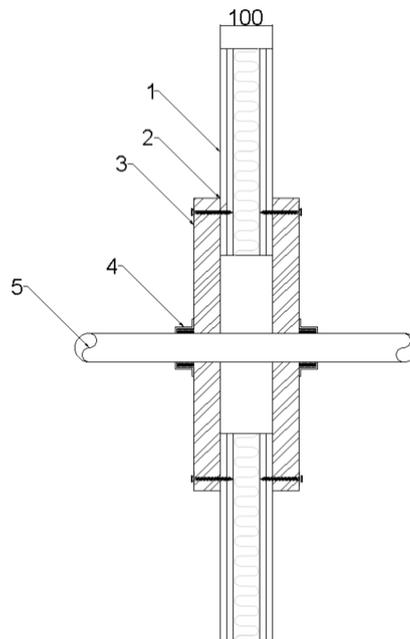
- Single layer of FIREPRO® Ablative Coated Batt (50mm) Plastic Pipes
- Max. Aperture size 730mm wide x 1200mm high
- Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal.
- pattern installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- Collars secured both faces of the substrate utilizing 80mm long pig tail screw through to the FIREPRO® Ablative Coated Batt



Penetration Specification	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 2.9mm wall thickness	32 mm	<b>EI 120 U/C</b>
PVC Pipe 40mm Ø, 2.9mm wall thickness	40 mm	
PVC Pipe 50mm Ø, 2.9mm wall thickness	50 mm	
PVC Pipe 55mm Ø, 2.9-4.4mm wall thickness	55 mm	
PVC Pipe 63mm Ø, 2.9-4.4mm wall thickness	63 mm	
PVC Pipe 75mm Ø, 2.8-6.7mm wall thickness	75 mm	
PVC Pipe 82mm Ø, 2.8-6.7mm wall thickness	82 mm	
PVC Pipe 90mm Ø, 2.7-10mm wall thickness	90 mm	
PVC Pipe 100mm Ø, 2.7-10mm wall thickness	100 mm	
PVC Pipe 110mm Ø, 2.7-10mm wall thickness	110 mm	
PVC Pipe 125mm Ø, 3.1mm wall thickness	125 mm	
PVC Pipe 140mm Ø, 3.5-8mm wall thickness	140 mm	
PVC Pipe 140mm Ø, 4-14.6mm wall thickness	160 mm	

**Construction details:**

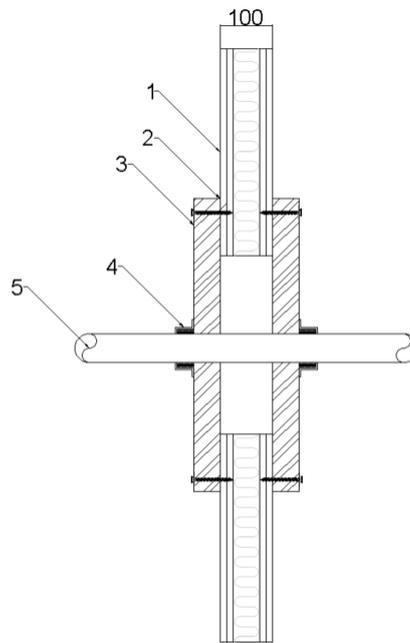
- Single layer of FIREPRO® Ablative Coated Batt pattress installed both sides of the wall. Plastic Pipes
- Max. Aperture size 2600mm wide x 2600mm high
- Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal.
- pattress installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- Collars secured both faces of the substrate utilizing 80mm long pig tail screw through to the FIREPRO® Ablative Coated Batt



Penetration Specification	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 2.9mm wall thickness	32 mm	<b>EI 60 U/C</b>
PVC Pipe 40mm Ø, 2.9mm wall thickness	40 mm	
PVC Pipe 50mm Ø, 2.9mm wall thickness	50 mm	
PVC Pipe 55mm Ø, 2.9-4.4mm wall thickness	55 mm	
PVC Pipe 63mm Ø, 2.9-4.4mm wall thickness	63 mm	
PVC Pipe 75mm Ø, 2.8-6.7mm wall thickness	75 mm	
PVC Pipe 82mm Ø, 2.8-6.7mm wall thickness	82 mm	
PVC Pipe 90mm Ø, 2.7-10mm wall thickness	90 mm	
PVC Pipe 100mm Ø, 2.7-10mm wall thickness	100 mm	
PVC Pipe 110mm Ø, 2.7-10mm wall thickness	110 mm	
PVC Pipe 125mm Ø, 3.1mm wall thickness	125 mm	
PVC Pipe 140mm Ø, 3.5-8mm wall thickness	140 mm	
PVC Pipe 140mm Ø, 4-14.6mm wall thickness	160 mm	

**Construction details:**

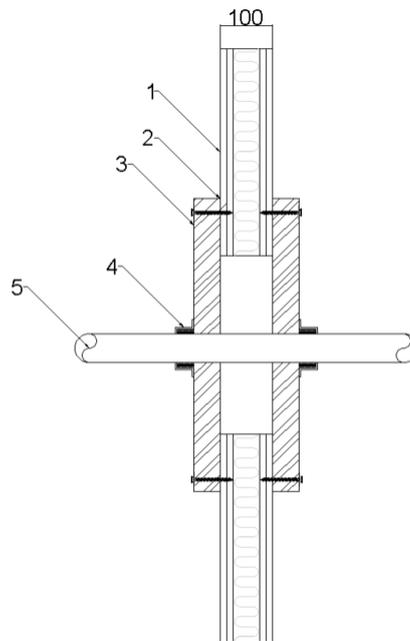
- Single layer of FIREPRO® Ablative Coated Batt (50mm) Plastic Pipes
- Max. Aperture size 730mm wide x 1200mm high
- Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal.
- patters installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- Collars secured both faces of the substrate utilizing 80mm long pig tail screw through to the FIREPRO® Ablative Coated Batt



Penetration Specification	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 2.9mm wall thickness	32 mm	<b>EI 120 U/C</b>
PVC Pipe 40mm Ø, 2.9mm wall thickness	40 mm	
PVC Pipe 50mm Ø, 2.9mm wall thickness	50 mm	
PVC Pipe 55mm Ø, 2.9-4.4mm wall thickness	55 mm	
PVC Pipe 63mm Ø, 2.9-4.4mm wall thickness	63 mm	
PVC Pipe 75mm Ø, 2.8-6.7mm wall thickness	75 mm	
PVC Pipe 82mm Ø, 2.8-6.7mm wall thickness	82 mm	
PVC Pipe 90mm Ø, 2.7-10mm wall thickness	90 mm	
PVC Pipe 100mm Ø, 2.7-10mm wall thickness	100 mm	
PVC Pipe 110mm Ø, 2.7-10mm wall thickness	110 mm	
PVC Pipe 125mm Ø, 3.1mm wall thickness	125 mm	
PVC Pipe 140mm Ø, 3.9-5.8mm wall thickness	140 mm	
PVC Pipe 140mm Ø, 4.9-9.5mm wall thickness	160 mm	

**Construction details:**

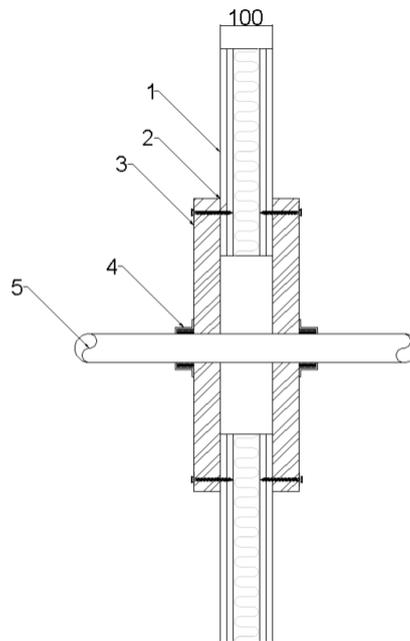
- Single layer of FIREPRO® Ablative Coated Batt (50mm) Plastic Pipes
- Max. Aperture size 2600mm wide x 2600mm high
- Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal.
- patters installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- Collars secured both faces of the substrate utilizing 80mm long pig tail screw through to the FIREPRO® Ablative Coated Batt



Penetration Specification	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 2.9mm wall thickness	32 mm	<b>EI 60 U/C</b>
PVC Pipe 40mm Ø, 2.9mm wall thickness	40 mm	
PVC Pipe 50mm Ø, 2.9mm wall thickness	50 mm	
PVC Pipe 55mm Ø, 2.9-4.4mm wall thickness	55 mm	
PVC Pipe 63mm Ø, 2.9-4.4mm wall thickness	63 mm	
PVC Pipe 75mm Ø, 2.8-6.7mm wall thickness	75 mm	
PVC Pipe 82mm Ø, 2.8-6.7mm wall thickness	82 mm	
PVC Pipe 90mm Ø, 2.7-10mm wall thickness	90 mm	
PVC Pipe 100mm Ø, 2.7-10mm wall thickness	100 mm	
PVC Pipe 110mm Ø, 2.7-10mm wall thickness	110 mm	
PVC Pipe 125mm Ø, 3.1mm wall thickness	125 mm	
PVC Pipe 140mm Ø, 3.9-5.8mm wall thickness	140 mm	
PVC Pipe 140mm Ø, 4.9-9.5mm wall thickness	160 mm	

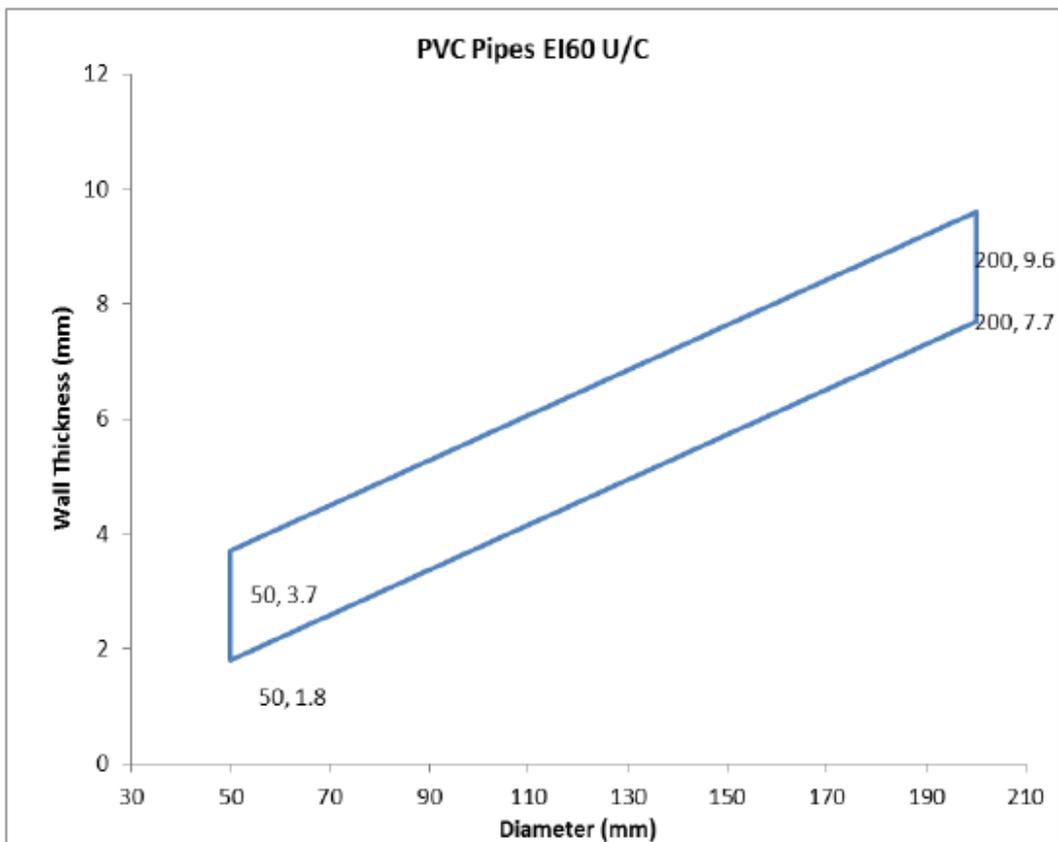
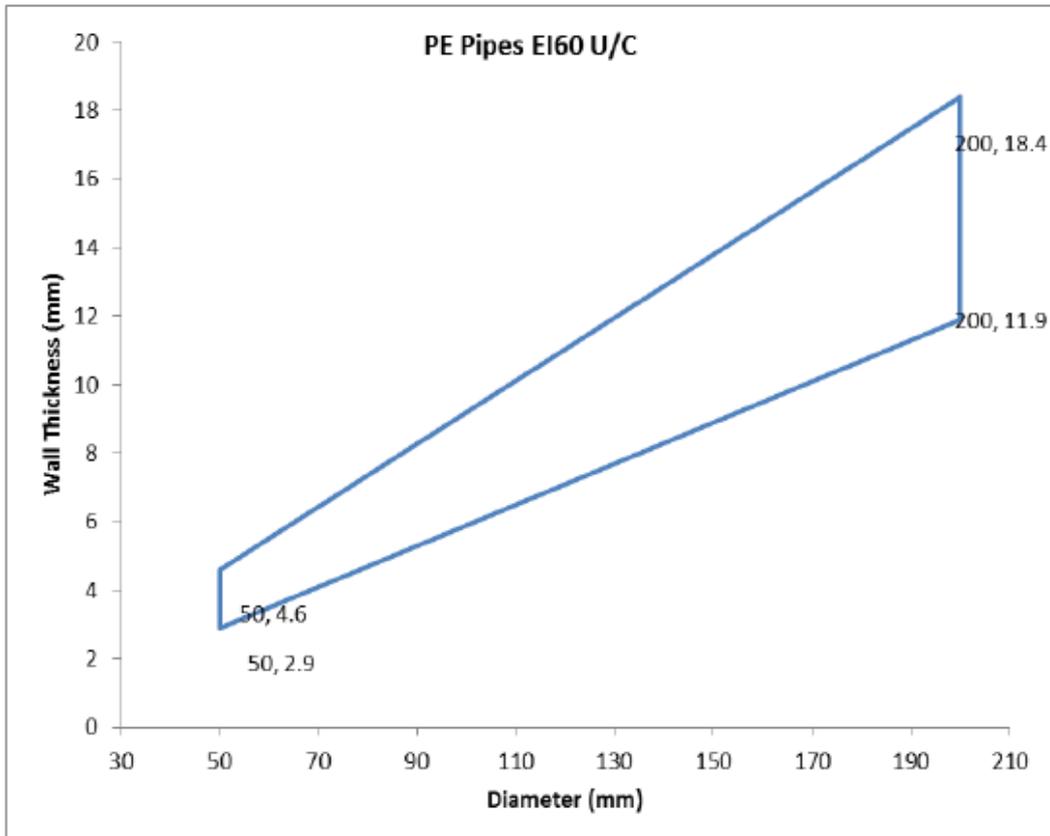
**Construction details:**

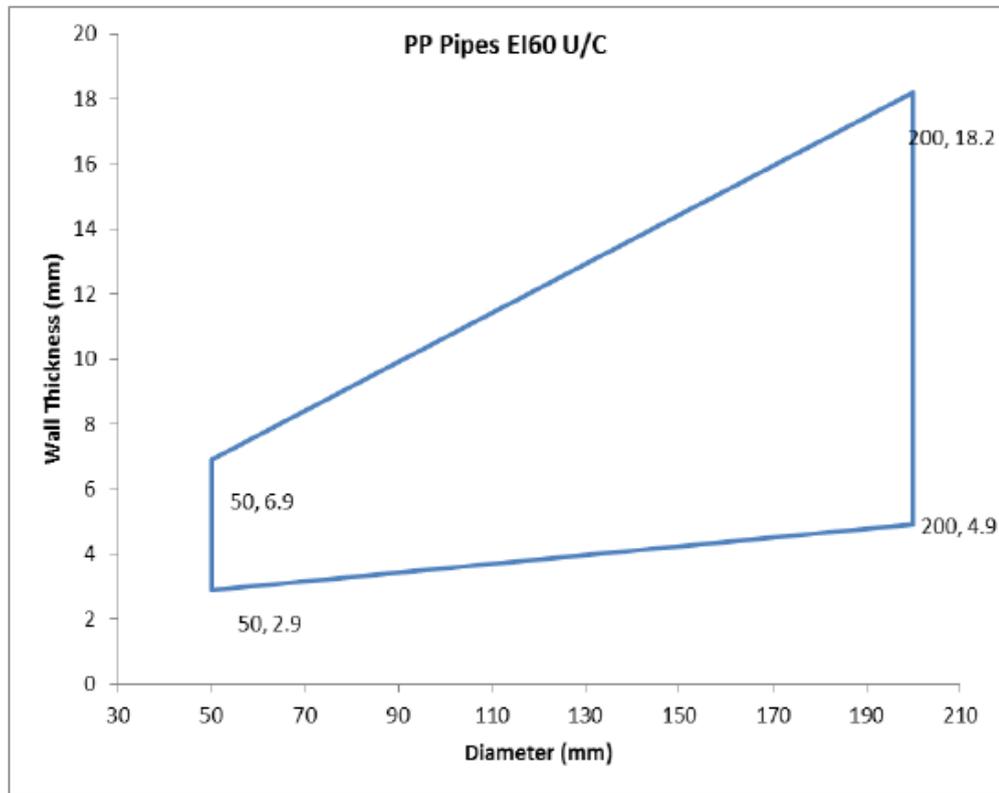
- Single layer of FIREPRO® Ablative Coated Batt (50mm) Plastic Pipes
- Max. Aperture size 2600mm wide x 2600mm high
- Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal.
- patters installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- Collars secured both faces of the substrate utilizing 80mm long pig tail screw through to the FIREPRO® Ablative Coated Batt



**Scope and classification as below**

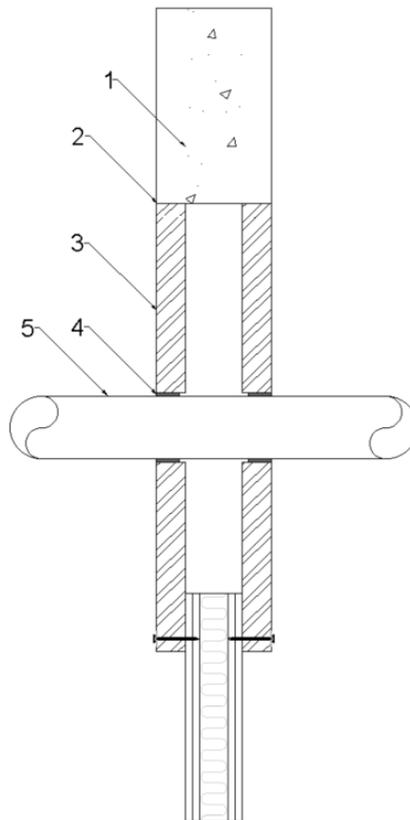
Intumescent Thickness	
Pipe Diameter	Intumescent Material
ø 32 mm - ø 50 mm	40 mm (W) x 2 mm (T)
ø 51 mm - ø 82 mm	40 mm (W) x 4 mm (T)
ø 83 mm - ø 115 mm	40 mm (W) x 6 mm (T)
ø 116 mm - ø 160 mm	40 mm (W) x 8 mm (T)
ø 161 mm - ø 200 mm	40 mm (W) x 10 mm (T)
ø 201 mm - ø 250 mm	40 mm (W) x 12 mm (T)





**Construction details:**

- Single layer of FIREPRO® Ablative Coated Batt (50mm) Plastic Pipes
- Max. Aperture size 2600mm wide x 2600mm high
- 30 mm overlap pattress installed flush to soffit.
- Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal.
- pattress installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Batts are flush to the substrate. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- Collars secured both faces of the substrate utilizing 80mm long pig tail screw through to the FIREPRO® Ablative Coated Batt



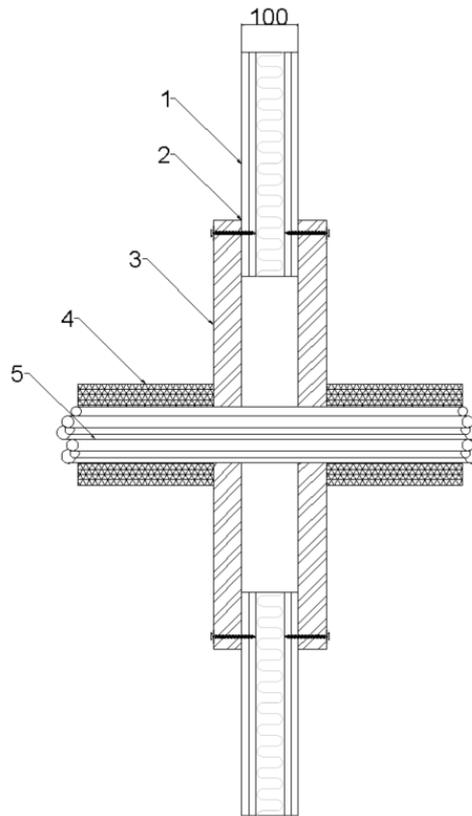
Service(s)	Classification
PVC Pipe 110mm Ø, 4.2mm wall thickness	<b>EI 60 C/U</b>

## B13 FIREPRO® Ablative Coated Batt Penetration Seal in Flexible or Rigid Walls min. 150 mm thick

### B13.1 Single Layer Pattress (50mm) FIREPRO® Ablative Coated Batt Penetration Seal B 13.1.1 Electrical Cables and Conduits

**Construction details:**

- Single layer of FIREPRO® Ablative Coated Batt (50mm) Single layer pattress
- Max. Aperture size 750mm wide x 1200mm high
- pattress installation of FIREPRO® Ablative Coated Batt.
- The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm.
- Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- Cables and cable trays wrapped with a single layer of 40mm thick, 40kg/m<sup>3</sup> Stone wool (L/I 300mm)



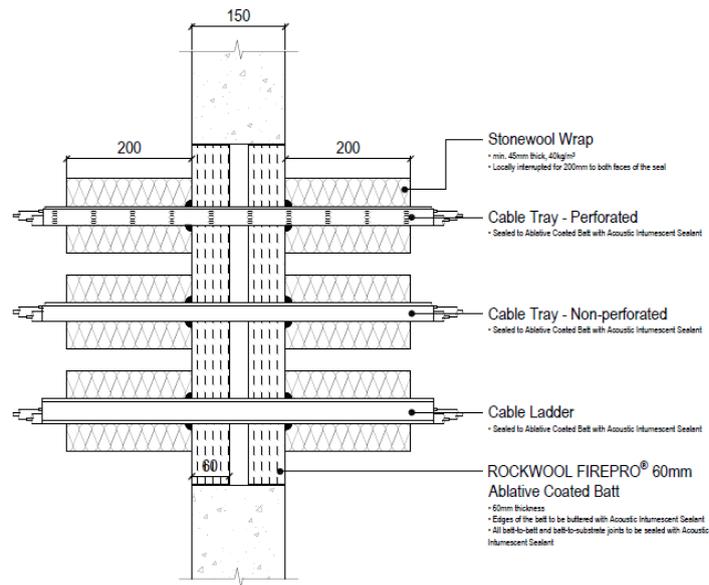
Service(s)	Classification
Electrical cables up to 80mm dia	<b>EI 120</b>
Cable Tray and Ladders	
100 mm diameter bundle telecommunication cable type "F"	
Unsheathed electrical cables up to 24mm dia	
Steel or copper conduits up to 16 mm dia	
Plastic Conduits up to 16 mm dia	

## B14 FIREPRO® Ablative Coated Batt Penetration Seal in Rigid Walls min. 150 mm thick

### B14.1 Double Layer (50mm) FIREPRO® Ablative Coated Batt Penetration Seal B14.1.1 Cable Penetrations

#### Construction details:

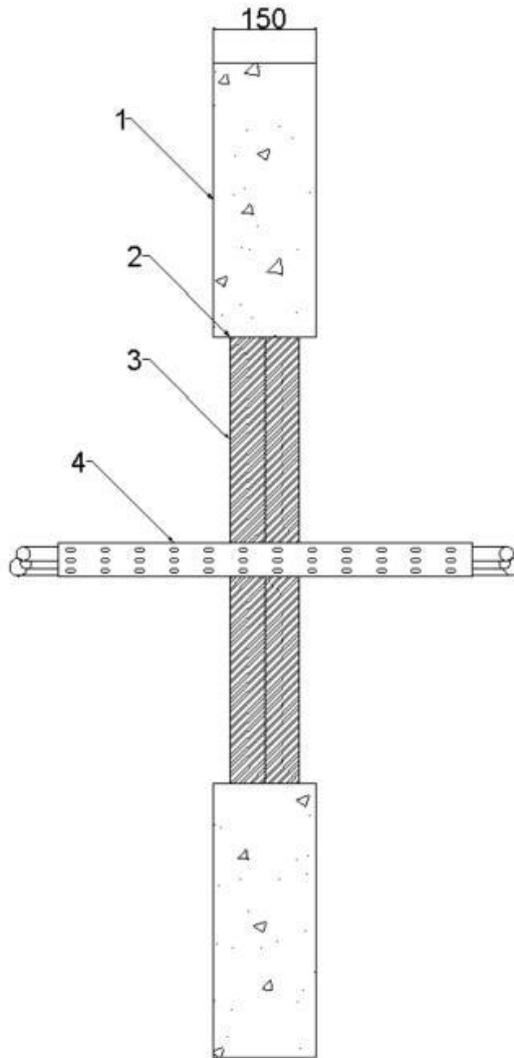
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 700mm wide x 1100mm high
- Cables and cable trays wrapped with Stone Wool Insulation 45mm thick, 40Kg/m<sup>3</sup> (L/I 200mm)
- First service support 400mm from both faces of the substrate



Service(s)	Classification
Electrical cables up to 21mm dia	<b>EI 120</b>
Electrical cables 22mm – 80mm dia	<b>E120 EI90</b>
Cable Trays and Ladders	<b>EI 120</b>
100 mm diameter bundle telecommunication cable type "F"	<b>EI 120</b>
Unsheathed electrical cables up to 24mm dia	<b>EI 120</b>

**Construction details:**

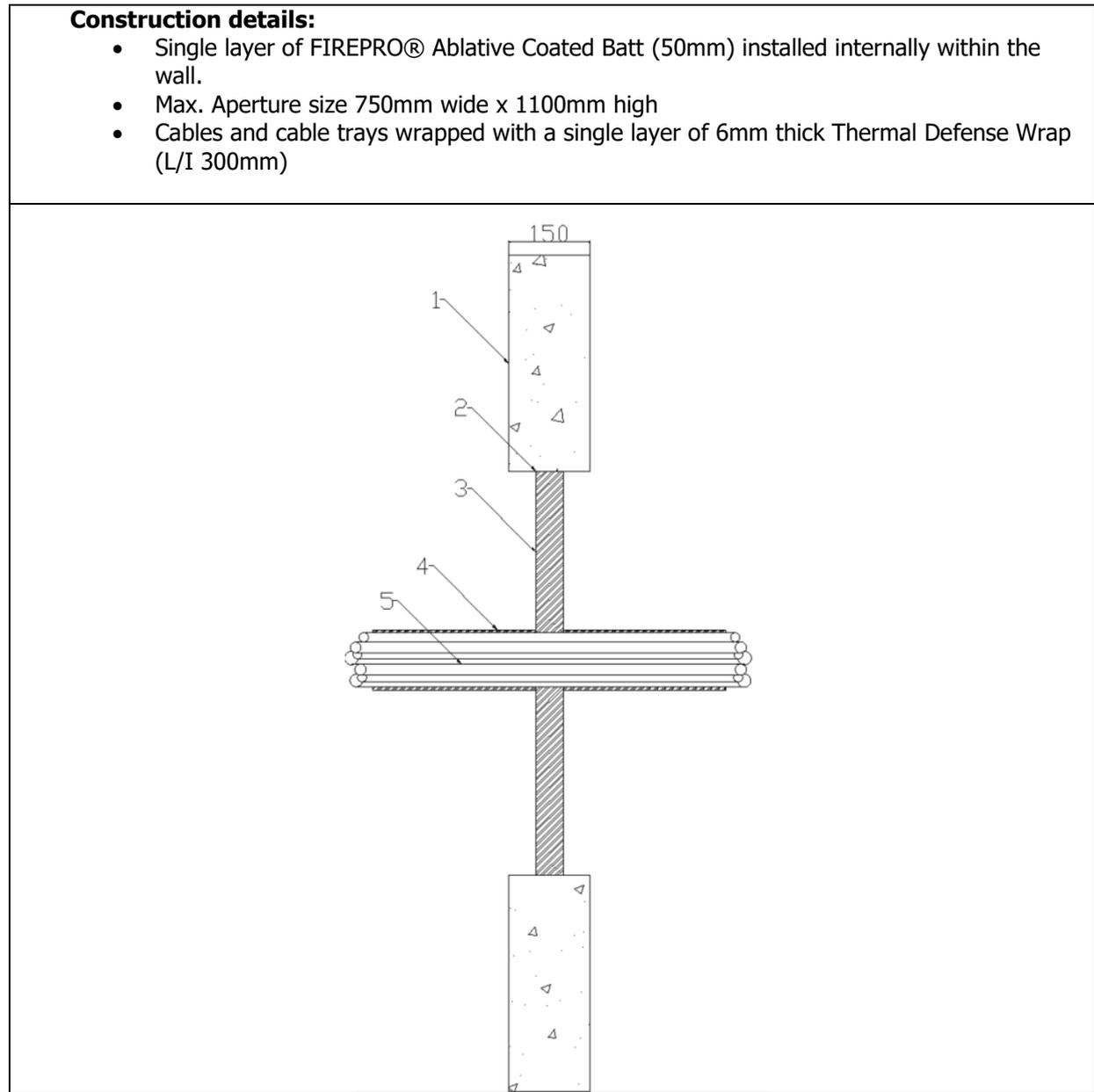
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 750mm wide x 1100mm high
- First service support 250mm from both faces of the substrate



Service(s)	Classification
Electrical cables up to 21mm dia	<b>E120</b> <b>EI 90</b>
Cable Tray	<b>EI 60</b>

## B15 FIREPRO® Ablative Coated Batt Penetration Seal in Flexible or Rigid Walls min. 150 mm thick

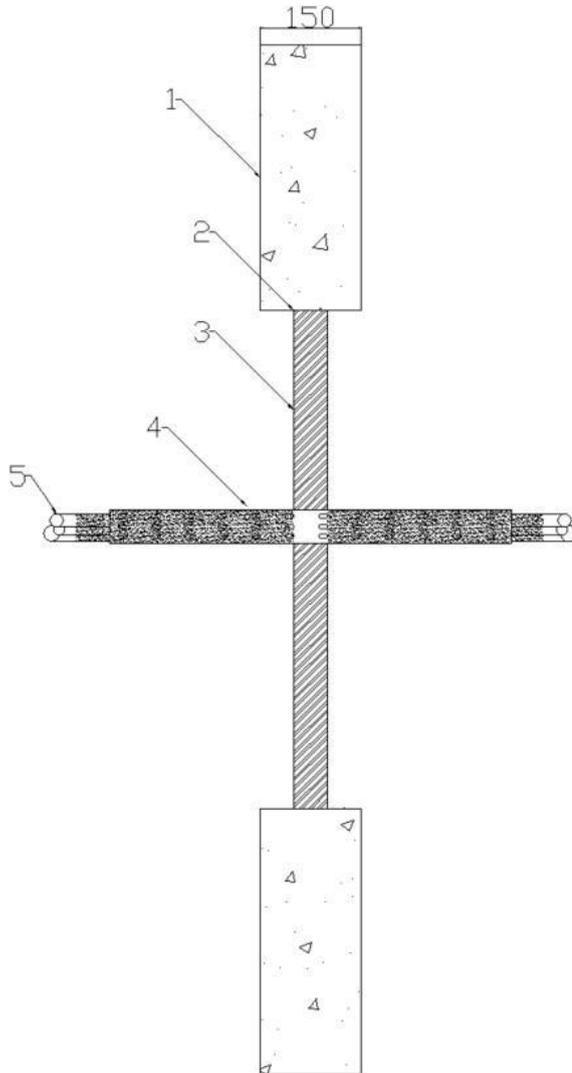
B15.1 single Layer (50mm) FIREPRO® Ablative Coated Batt  
 Penetration Seal B 15.1.1 Cable Penetrations



Service(s)	Classification
Electrical cables up to 80mm dia	EI 60
Cable Tray and Ladders	
100 mm diameter bundle telecommunication cable type "F"	
Unsheathed electrical cables up to 24mm dia	

**Construction details:**

- Single layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 750mm wide x 1100mm high
- All cables coated with 2mm DFT FIREPRO® Ablative Liquid 300mm along the cables both sides of the seal



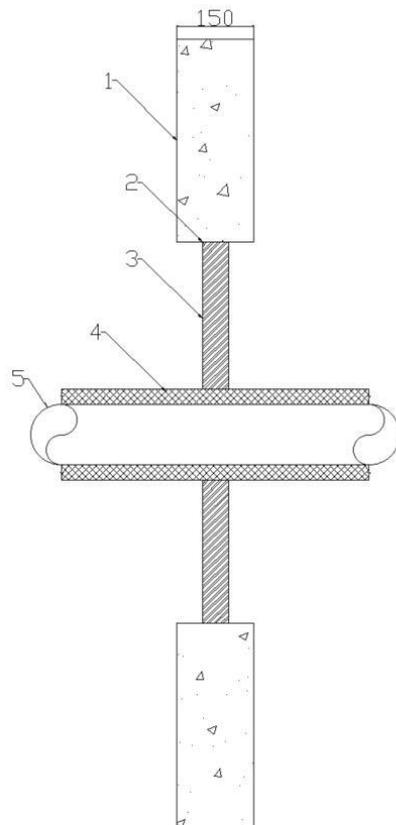
Service(s)	Classification
500 mm perforated cable tray	EI 30
Electrical cables up to 21mm dia	EI 45
1 off "C1" Cable	
1 off "C2" Cable	
1 off "C3" Cable	

## B16 FIREPRO® Ablative Coated Batt Penetration Seal in Flexible or Rigid Walls min. 150 mm thick

### B16.1 Single Layer (50mm) FIREPRO® Ablative Coated Batt Penetration Seal B 16.1.1 Insulated Metallic Pipes

#### Construction details:

- Single layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 750mm wide x 1100mm high



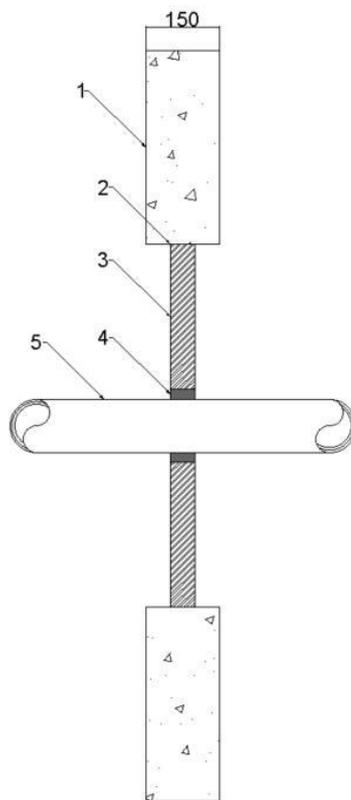
Service(s)	Classification
Steel or Copper Pipe 108mm Ø, 1.5mm – 14.2mm Wall Thickness. (C/S) 40mm stone wool insulation (min 140Kg/m <sup>3</sup> )	<b>E60 C/U</b> <b>EI45 C/U</b>
Steel or Copper Pipe 42mm Ø, 1.2mm – 14.2mm wall thickness. (L/I 300mm) 40mm stone wool insulation (min 40Kg/m <sup>3</sup> )	<b>EI45 C/U</b>
Steel or Copper Pipe 42mm – 159mm Ø, 2mm – 14.2mm wall thickness. (L/I 300mm) 40mm stone wool insulation (min 40Kg/m <sup>3</sup> )	<b>E45 C/U</b> <b>EI20 C/U</b>
Steel or Copper Pipe 42mm – 159mm Ø, 2mm – 14.2mm wall thickness. (C/I) 40mm stone wool insulation (min 40Kg/m <sup>3</sup> )	<b>E45 C/U</b> <b>EI30 C/U</b>

**B17 FIREPRO® Ablative Coated Batt Penetration Seal in Flexible or Rigid Walls min. 150 mm thick**

B17.1 Single Layer (50mm) FIREPRO® Ablative Coated Batt Penetration Seal  
 B 17.1.1 Plastic

**Construction details:**

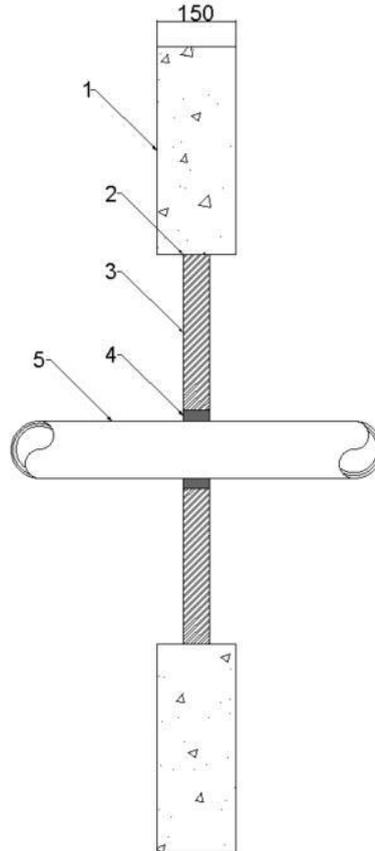
- Single layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 750mm wide x 1100mm high
- FIREPRO® High Expansion Intumescent Sealant 20mm annulus full 50mm depth of the FIREPRO® Ablative Coated Batt



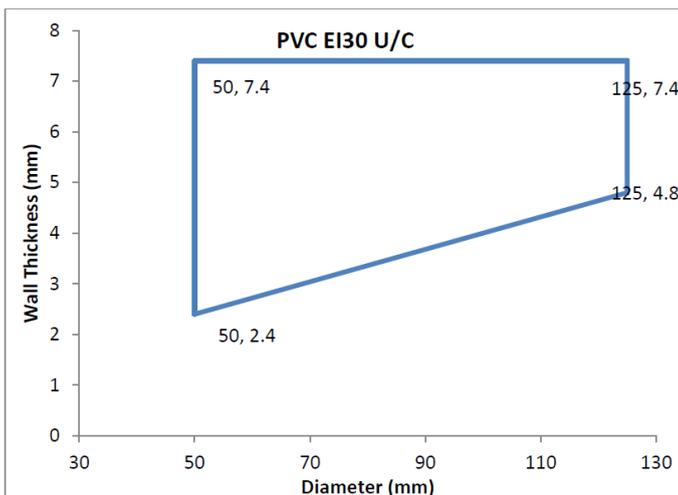
Service(s)	Classification
Uponor MLC (Multi-Layer Composite) Pipe 40mm ø 4mm wall thickness	<b>E 45 U/C</b> <b>EI 30 U/C</b>
Uponor MLC (Multi-Layer Composite) Pipe 50mm ø 4.5mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 63mm ø 6mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 75mm ø 7.5mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 90mm ø 8.5mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 110mm ø 10mm wall thickness	

**Construction details:**

- Single layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 750mm wide x 1100mm high
- FIREPRO® High Expansion Intumescent Sealant 20mm annulus full 50mm depth of the FIREPRO® Ablative Coated Batt



Service(s)	Classification
PVC Pipe 50mm $\varnothing$ 2.4mm wall thickness	<b>EI 45 U/C</b>
Also scope as per graphs below	



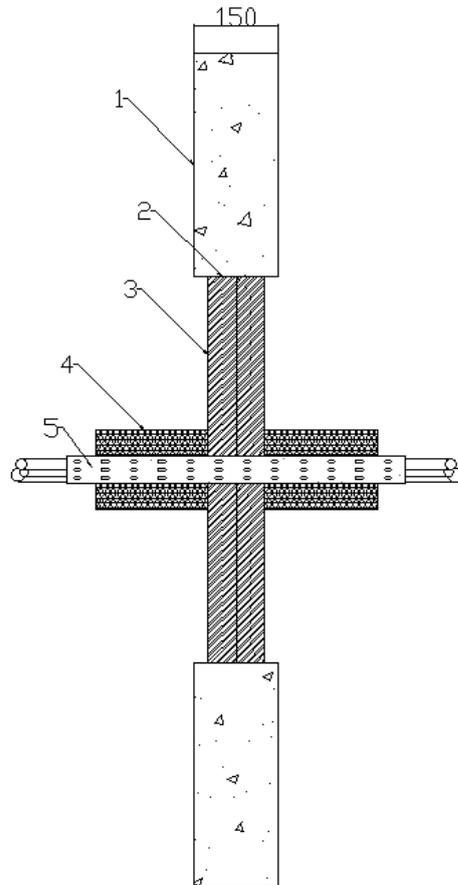
## B18 FIREPRO® Ablative Coated Batt Penetration Seal in Flexible or Rigid Walls min. 150 mm thick

B18.1 Double Layer (50mm) FIREPRO® Ablative Coated Batt Penetration Seal

B 18.1.1 Electrical Cables

### Construction details:

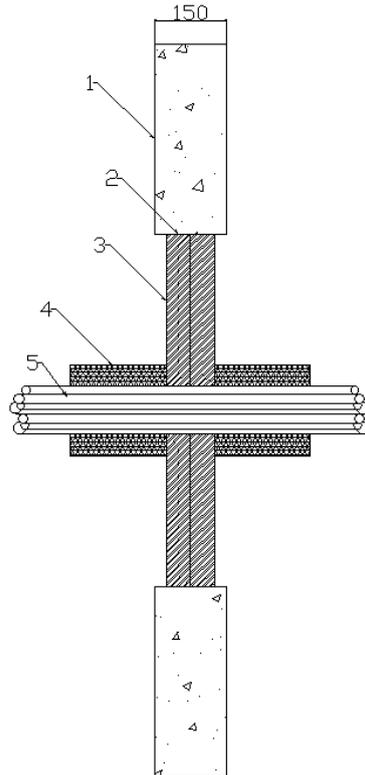
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 730mm wide x 1200mm high
- Cables and cable trays wrapped with Stone Wool Insulation 45mm thick, 40Kg/m<sup>3</sup> (L/I 200mm)



Service(s)	Classification
Electrical cables up to 21mm dia	<b>EI 120</b>
Electrical cables 22mm – 80mm dia	<b>E 120</b> <b>EI 90</b>
Cable Trays and Ladders	<b>EI 120</b>
100 mm diameter bundle telecommunication cable type "F"	<b>EI 120</b>
Unsheathed electrical cables up to 24mm dia	<b>EI 120</b>

**Construction details:**

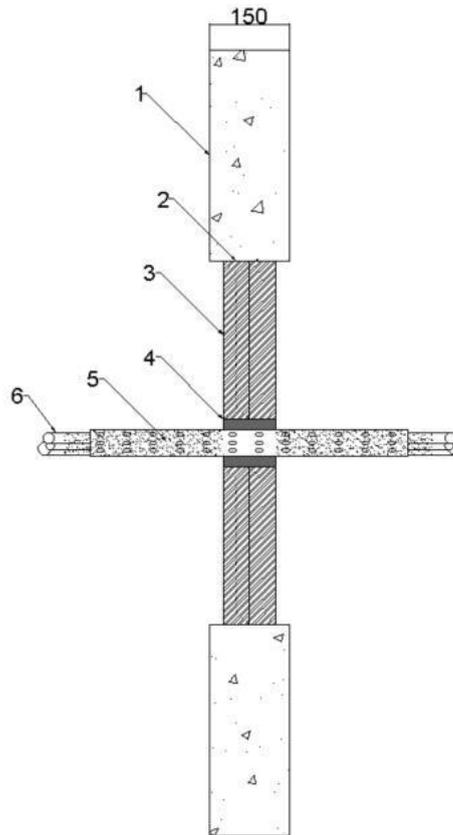
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 2600mm wide x 2600mm high
- Cables and cable trays wrapped with Stone Wool Insulation 45mm thick, 40Kg/m<sup>3</sup> (L/I 200mm)



Service(s)	Classification
Electrical cables up to 21mm dia	<b>EI 60</b>
Electrical cables 22mm – 80mm dia	
Cable Trays and Ladders	
100 mm diameter bundle telecommunication cable type "F"	
Unsheathed electrical cables up to 24mm dia	

**Construction details:**

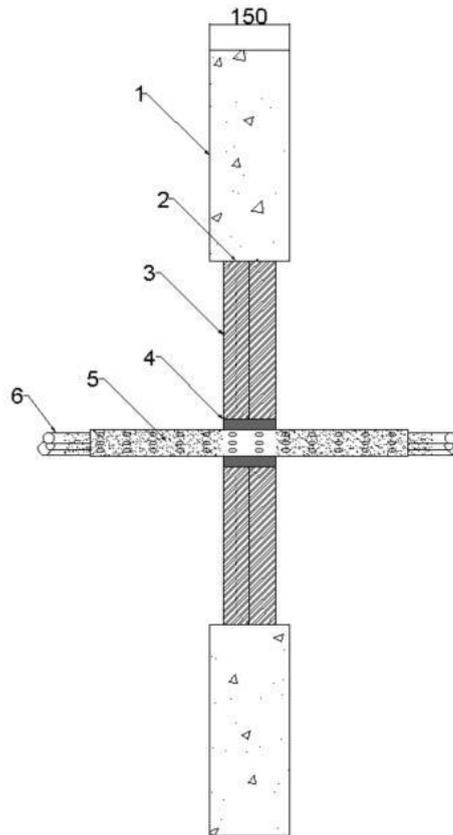
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 750mm wide x 1100mm high
- All cables coated with 2mm DFT FIREPRO® Ablative Liquid 300mm along the cables both sides of the seal.
- FIREPRO® High Expansion Intumescent Sealant 20mm annulus full 50mm depth of the FIREPRO® Ablative Coated Batt



Service(s)	Classification
500 mm perforated cable tray	<b>EI 120</b>
Electrical cables up to 21mm dia	
1 off "C1" Cable	
1 off "C2" Cable	<b>E 120</b> <b>EI 90</b>
1 off "C3" Cable	<b>EI 120</b>

**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 2600mm wide x 2600mm high
- All cables coated with 2mm DFT FIREPRO® Ablative Liquid 300mm along the cables both sides of the seal.
- FIREPRO® High Expansion Intumescent Sealant 20mm annulus full 50mm depth of the FIREPRO® Ablative Coated Batt



Service(s)	Classification
500 mm perforated cable tray	<b>EI 60</b>
Electrical cables up to 21mm dia	
1 off "C1" Cable	
1 off "C2" Cable	
1 off "C3" Cable	

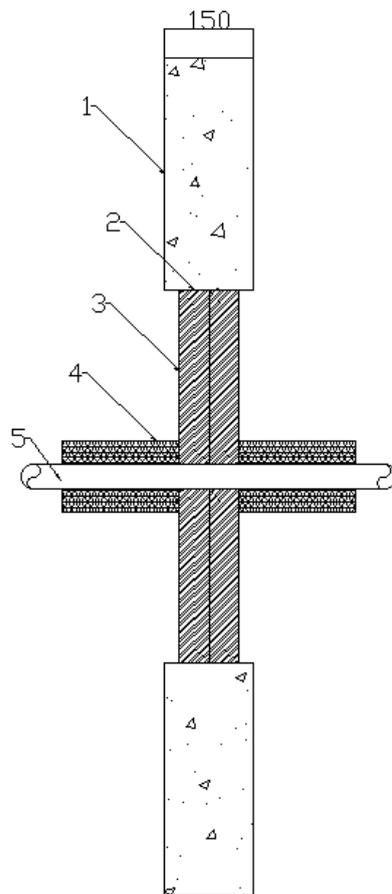
## B19 FIREPRO® Ablative Coated Batt Penetration Seal in Flexible or Rigid Walls min. 150 mm thick

B19.1 Double Layer (50mm) FIREPRO® Ablative Coated Batt Penetration Seal

B 19.1.1 Insulated Metallic Pipes

### Construction details:

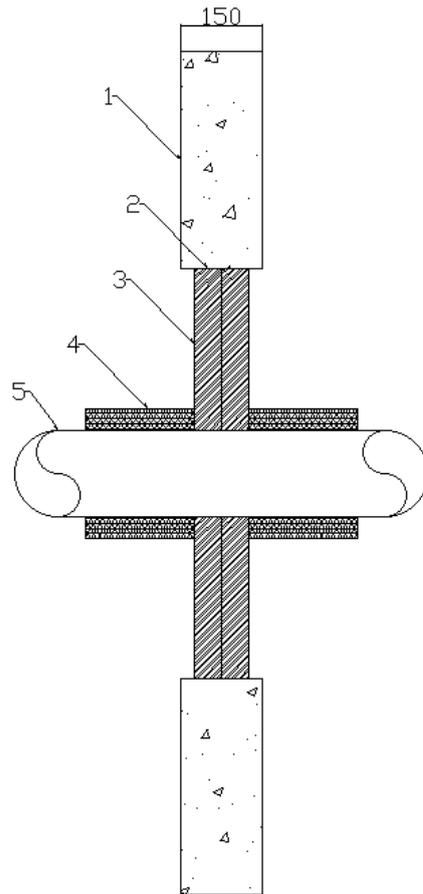
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 730mm wide x 1200mm high
- Cables and cable trays wrapped with Stone Wool Insulation 45mm thick, 40Kg/m<sup>3</sup> (L/I 200mm)



Service(s)	Classification
Steel or Copper Pipe 42mm Ø, 1.2mm – 14.2mm wall thickness. (L/I 300mm) 40mm stone wool insulation (min 40Kg/m <sup>3</sup> )	<b>E 120 C/U</b> <b>EI 60 C/U</b>
Steel or Copper Pipe 42mm – 159mm Ø, 2mm – 14.2mm wall thickness. (L/I 300mm) 40mm stone wool insulation (min 40Kg/m <sup>3</sup> )	<b>E 120 C/U</b> <b>EI 30 C/U</b>

**Construction details:**

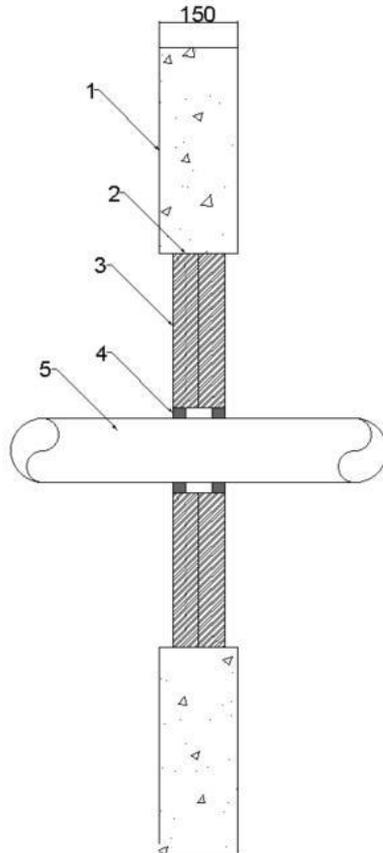
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 2600mm wide x 2600mm high
- Cables and cable trays wrapped with Stone Wool Insulation 45mm thick, 40Kg/m<sup>3</sup> (L/I 200mm)



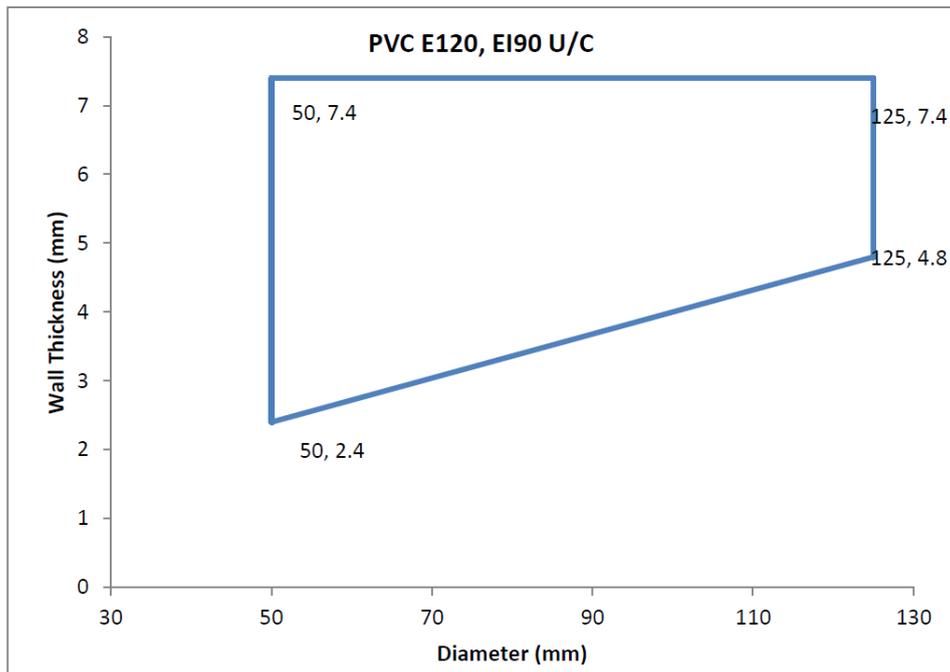
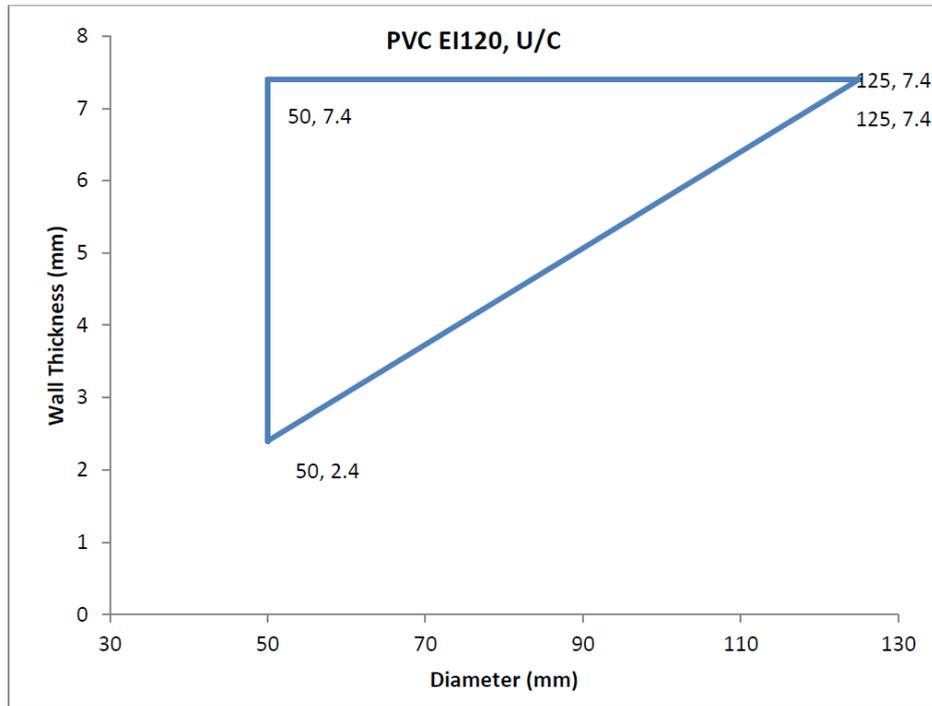
Service(s)	Classification
Steel or Copper Pipe 42mm Ø, 1.2mm – 14.2mm wall thickness. (L/I 300mm) 40mm stone wool insulation (min 40Kg/m <sup>3</sup> )	<b>EI 60 C/U</b>
Steel or Copper Pipe 42mm – 159mm Ø, 2mm – 14.2mm wall thickness. (L/I 300mm) 40mm stone wool insulation (min 40Kg/m <sup>3</sup> )	<b>E 60 C/U</b> <b>EI 30 C/U</b>

**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 750mm wide x 1100mm high
- Cables and cable trays wrapped with Stone Wool Insulation 45mm thick, 40Kg/m<sup>3</sup> (L/I 200mm)

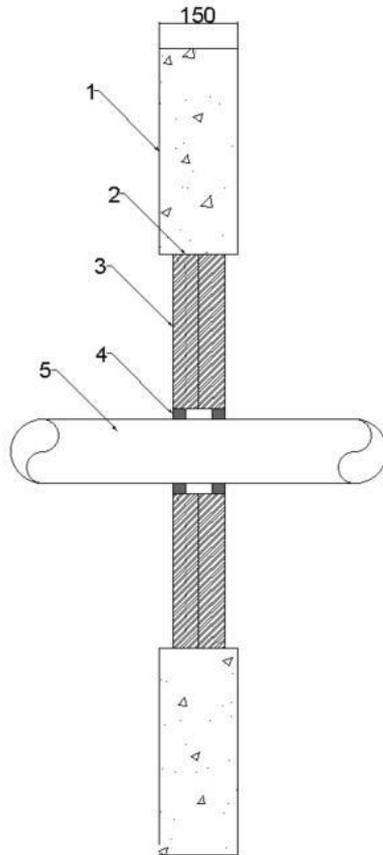


Service(s)	FIREPRO® High Expansion Intumescent Sealant	Classification
Pipe diameters as below	20 mm annulus, 25 mm deep both faces of the FIREPRO® Ablative Coated Batt	See graphs below

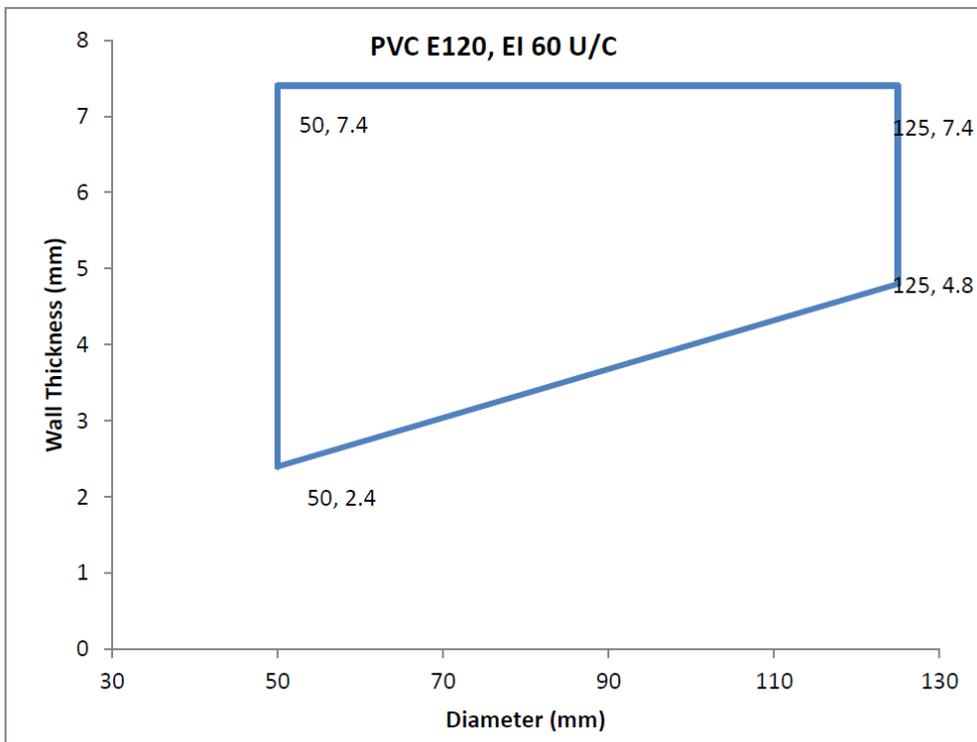
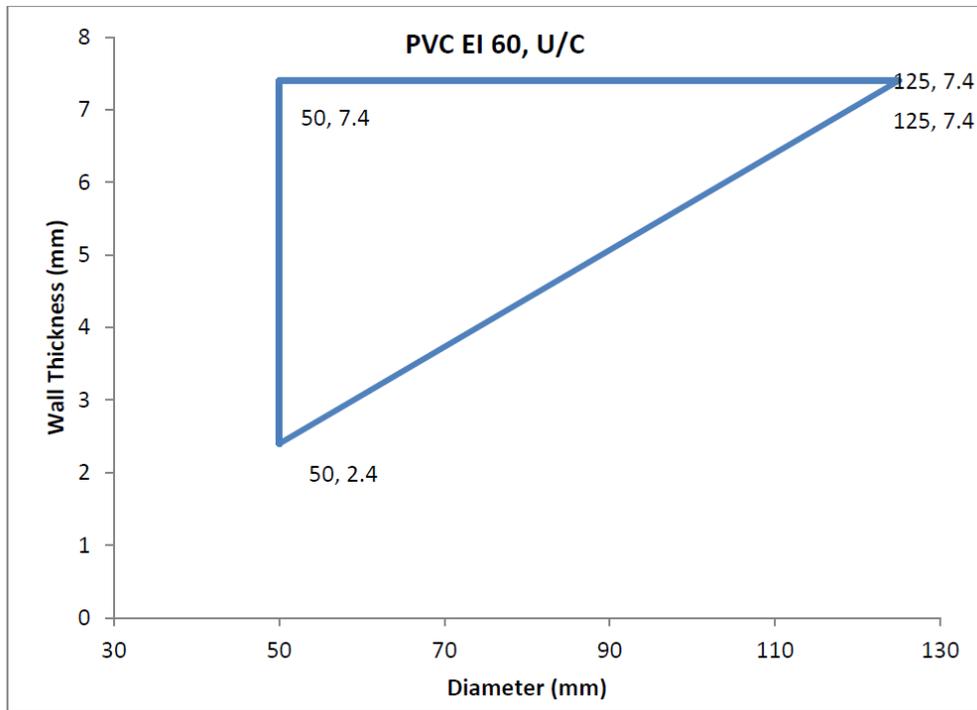


**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 2600mm wide x 2600mm high
- Cables and cable trays wrapped with Stone Wool Insulation 45mm thick, 40Kg/m<sup>3</sup> (L/I 200mm)

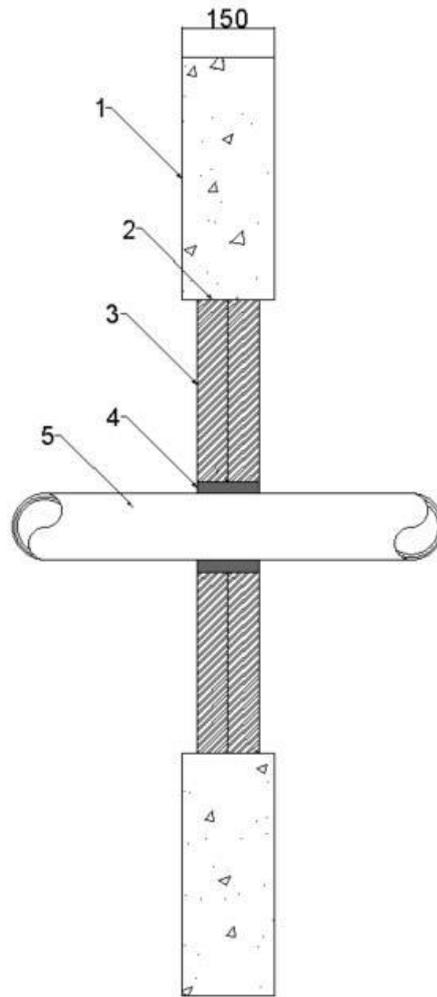


Service(s)	FIREPRO® High Expansion Intumescent Sealant	Classification
Pipe diameters as below	20 mm annulus, 25 mm deep both faces of the FIREPRO® Ablative Coated Batt	EI 60



**Construction details:**

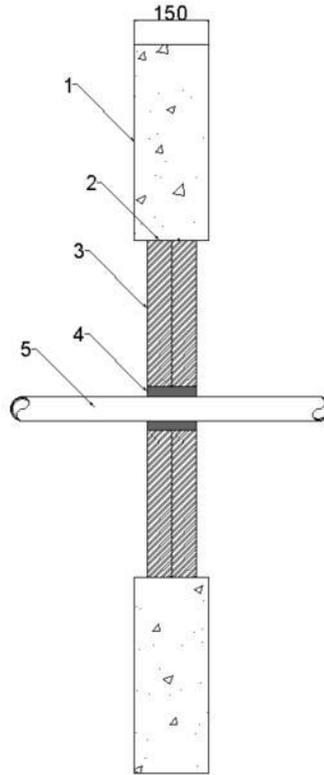
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 750mm wide x 1100mm high
- FIREPRO® High Expansion Intumescent Sealant 20mm annulus full 50mm depth of the FIREPRO® Ablative Coated Batt



Service(s)	Classification
Uponor MLC (Multi-Layer Composite) Pipe 40mm $\varnothing$ 4mm wall thickness	<b>EI 120 U/C</b>
Uponor MLC (Multi-Layer Composite) Pipe 50mm $\varnothing$ 4.5mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 63mm $\varnothing$ 6mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 75mm $\varnothing$ 7.5mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 90mm $\varnothing$ 8.5mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 110mm $\varnothing$ 10mm wall thickness	

**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 2600mm wide x 2600mm high
- FIREPRO® High Expansion Intumescent Sealant 20mm annulus full 50mm depth of the FIREPRO® Ablative Coated Batt



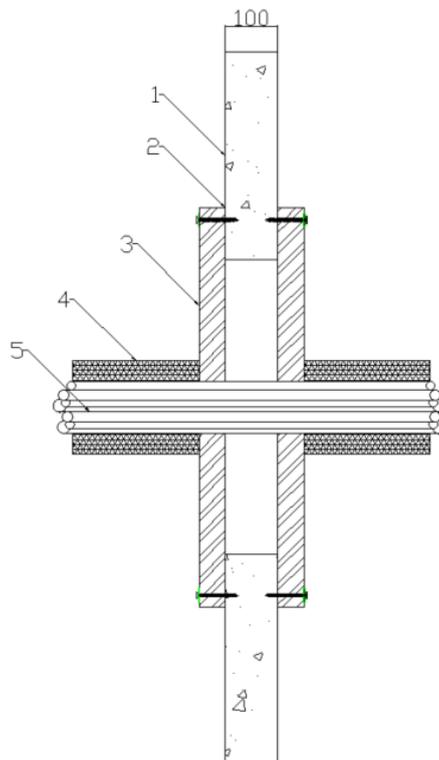
Service(s)	Classification
Uponor MLC (Multi-Layer Composite) Pipe 40mm ø 4mm wall thickness	<b>EI 60 U/C</b>
Uponor MLC (Multi-Layer Composite) Pipe 50mm ø 4.5mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 63mm ø 6mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 75mm ø 7.5mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 90mm ø 8.5mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 110mm ø 10mm wall thickness	

## B20 FIREPRO® Ablative Coated Batt Single layer Pattress

B20.1 Single Layer (50mm) FIREPRO® Ablative Coated Batt  
 Penetration Seal B 20.1.1 Electrical Cables and Conduits

**Construction details:**

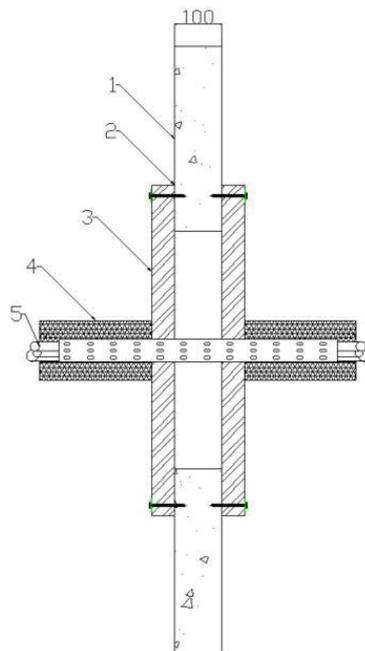
- Single layer of FIREPRO® Ablative Coated Batt pattress installed both sides of the wall.
- Max. Aperture size 750mm wide x 1200mm high
- Pattress installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- Cables and cable trays wrapped with a single layer of 40mm thick, 40kg/m<sup>3</sup> Stone wool (L/I 300mm)



Service(s)	Classification
Electrical cables up to 80mm dia	<b>EI 120</b>
Cable Trays and Ladders	
100 mm diameter bundle telecommunication cable type "F"	
Unsheathed electrical cables up to 24mm dia	
Steel or Copper Conduits up to 16mm	
Plastic conduits up to 16mm	

**Construction details:**

- Single layer of FIREPRO® Ablative Coated Batt pattress installed both sides of the wall.
- Max. Aperture size 750mm wide x 1200mm high
- Pattress installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- Cables and cable trays wrapped with a single layer of 40mm thick, 40kg/m<sup>3</sup> Stone wool (L/I 300mm)



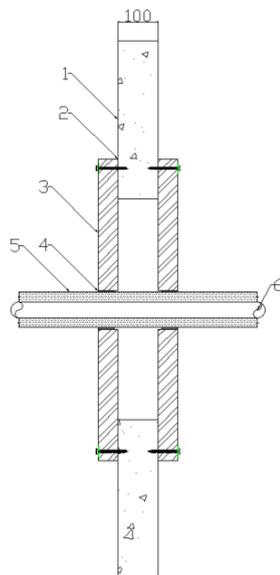
Service(s)	Classification
Electrical cables up to 80mm dia	<b>EI 60</b>
Cable Trays and Ladders	
100 mm diameter bundle telecommunication cable type "F"	
Unsheathed electrical cables up to 24mm dia	
Steel or Copper Conduits up to 16mm	
Plastic conduits up to 16mm	

## B21 FIREPRO® Ablative Coated Batt Single layer Pattress

### B21.1 Single Layer (50mm) FIREPRO® Ablative Coated Batt Penetration Seal B 21.1.1 Insulated Metallic Pipes

#### Construction details:

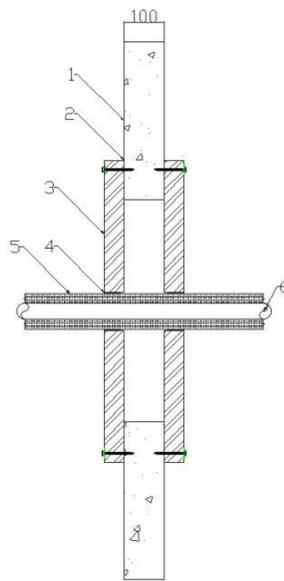
- Single layer of FIREPRO® Ablative Coated Batt pattress installed both sides of the wall.
- Max. Aperture size 750mm wide x 1200mm high
- Pattress installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- 2 x 2mm thick layers of FIREPRO® Intumescent Pipe Wrap Roll/FIREPRO® Intumescent Pipe Wrap CE installed both sides of the substrate within the pattress installation.
- equivalent elastomeric pipe insulation classified BL – s2, d0 or better to EN 13501-1
- equivalent Phenolic foam pipe insulation classified BL – s1, d0 or better to EN 13501-1



Service(s)	Classification
Steel or Copper Pipe 42-159mm Ø, 1.2mm – 14.2mm wall thickness. 13-25mm thick K Flex ST Insulation (C/S)	<b>E 120 C/U</b> <b>EI 60 C/U</b>
Steel or Copper Pipe 42-159mm Ø, 1.2 – 14.2mm wall thickness. 25mm thick K Flex ST insulation <sup>3</sup> (C/S)	<b>E 120 C/U</b> <b>EI 90 C/U</b>
Steel or Copper Pipe 42mm Ø, 1 – 14.2mm wall thickness. 25-13mm thick K Flex ST insulation <sup>3</sup> (C/S)	<b>EI 120 C/U</b>
Steel or Copper Pipe 42-108mm Ø, 1.2 – 14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM insulation (C/S)	<b>E 120 C/U</b> <b>EI 90 C/U</b>
Steel or Copper Pipe 42mm Ø, 1-14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM insulation <sup>4</sup> (C/S)	<b>EI 120 C/U</b>
Steel or Copper Pipe 42mm Ø, 1.2-14.2mm wall thickness. 50mm thick glassfibre insulation min. 30kg/m (C/S)	<b>E 120 C/U</b> <b>EI 90 C/U</b>

**Construction details:**

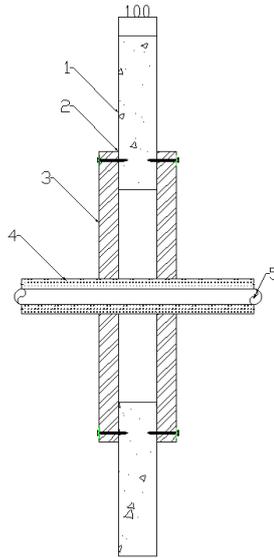
- Single layer of FIREPRO® Ablative Coated Batt pattress installed both sides of the wall.
- Max. Aperture size 750mm wide x 1200mm
- Pattress installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- 2 x 2mm thick layers of FIREPRO® Intumescent Pipe Wrap Roll/FIREPRO® Intumescent Pipe Wrap CE installed both sides of the substrate within the pattress installation.
- equivalent elastomeric pipe insulation classified BL – s2, d0 or better to EN 13501-1
- equivalent Phenolic foam pipe insulation classified BL – s1, d0 or better to EN 13501-1



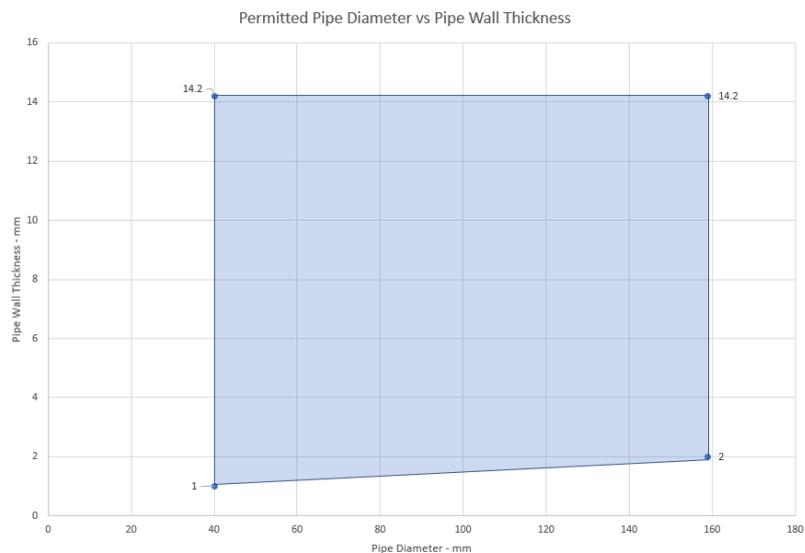
Service(s)	Classification
Steel or Copper Pipe 42-159mm Ø, 1.2mm – 14.2mm wall thickness. 13-25mm thick K Flex ST Insulation (C/S)	<b>EI 60 C/U</b>
Steel or Copper Pipe 42-159mm Ø, 1.2 – 14.2mm wall thickness. 25mm thick K Flex ST insulation3 (C/S)	
Steel or Copper Pipe 42mm Ø, 1 – 14.2mm wall thickness. 25-13mm thick K Flex ST insulation3 (C/S)	
Steel or Copper Pipe 42-108mm Ø, 1.2 – 14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM insulation (C/S)	
Steel or Copper Pipe 42mm Ø, 1-14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM insulation4 (C/S)	
Steel or Copper Pipe 42mm Ø, 1.2-14.2mm wall thickness. 50mm thick glassfibre insulation min. 30kg/m (C/S)	

**Construction details:**

- Single layer of FIREPRO® Ablative Coated Batt pattress installed both sides of the wall.
- Max. Aperture size 750mm wide x 1200mm high
- Pattress installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.

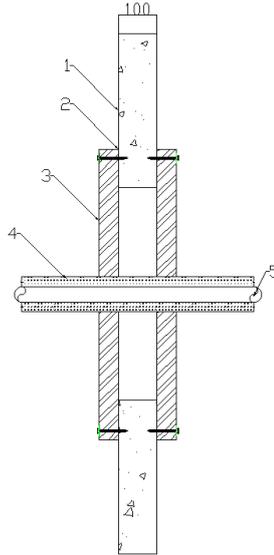


Service(s)	Classification
Steel or Copper Pipe 42-159mm Ø, 1.0mm – 14.2mm wall thickness (see graph below). 25mm thick foil faced glassfibre insulation min. 30kg/m <sup>3</sup> (C/S)	<b>E 120 C/U</b> <b>EI 90 C/U</b>
Steel or Copper Pipe 42mm Ø, 1mm – 14.2mm wall thickness. 25mm thick foil faced glassfibre insulation min. 30kg/m <sup>3</sup> (C/S)	<b>EI 120 C/U</b>

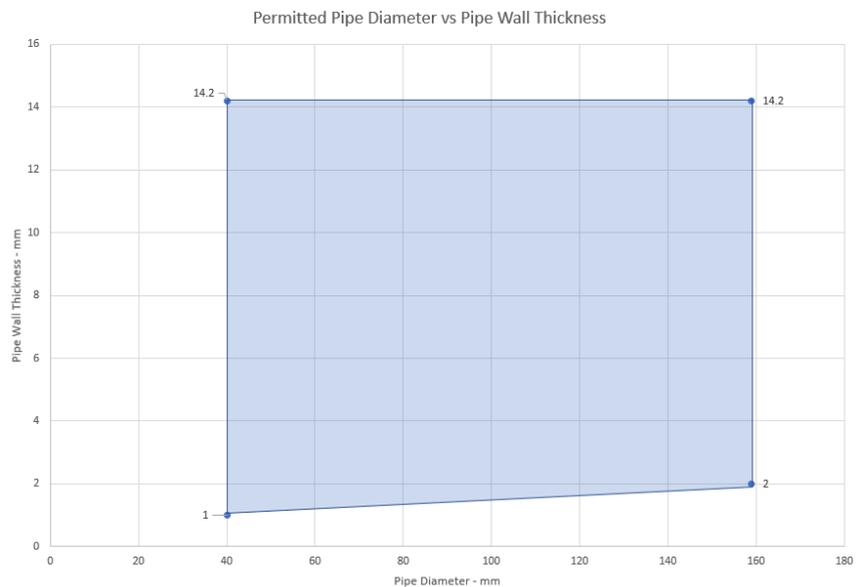


**Construction details:**

- Single layer of FIREPRO® Ablative Coated Batt pattress installed both sides of the wall.
- Max. Aperture size 750mm wide x 1200mm high
- Pattress installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.



Service(s)	Classification
Steel or Copper Pipe 42-159mm Ø, 1.0mm – 14.2mm wall thickness (see graph below). 25mm thick foil faced glassfibre insulation min. 30kg/m <sup>3</sup> (C/S)	<b>EI 60 C/U</b>
Steel or Copper Pipe 42mm Ø, 1mm – 14.2mm wall thickness. 25mm thick foil faced glassfibre insulation min. 30kg/m <sup>3</sup> (C/S)	<b>EI 60 C/U</b>



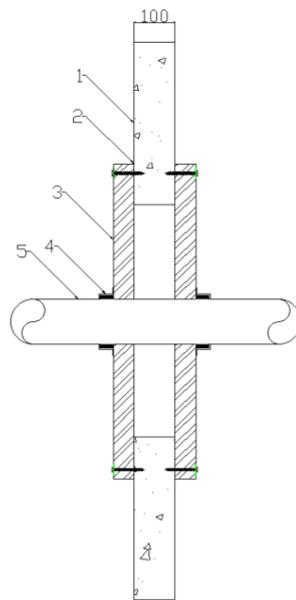
## B22 FIREPRO® Ablative Coated Batt Single layer Pattress

### B22.1 Single Layer (50mm) FIREPRO® Ablative Coated Batt

#### Penetration B 22.1.1 Plastic Pipes

##### Construction details:

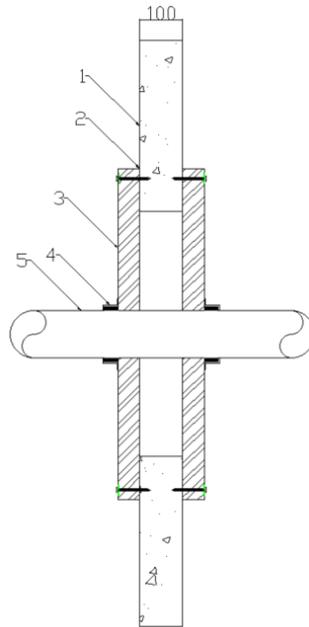
- Single layer of FIREPRO® Ablative Coated Batt pattress installed both sides of the wall Plastic Pipes
- Max. Aperture size 730mm wide x 1200mm high
- Pattress installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- Collars secured both faces of the substrate utilizing 80mm long pig tail screw through to the FIREPRO® Ablative Coated Batt



Penetration Specification	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 1.8mm wall thickness	32 mm	<b>EI 120 U/C</b>
PVC Pipe 40mm Ø, 1.8mm wall thickness	40 mm	
PVC Pipe 50mm Ø, 1.8mm wall thickness	50 mm	
PVC Pipe 55mm Ø, 1.8-2.3mm wall thickness	55 mm	
PVC Pipe 63mm Ø, 2.3-3mm wall thickness	63 mm	
PVC Pipe 75mm Ø, 3.1-4.8mm wall thickness	75 mm	
PVC Pipe 82mm Ø, 3.1-4.8mm wall thickness	82 mm	
PVC Pipe 90mm Ø, 4.2-7.4mm wall thickness	90 mm	
PVC Pipe 100mm Ø, 4.2-7.4mm wall thickness	100 mm	
PVC Pipe 110mm Ø, 4.2-7.4mm wall thickness	110 mm	
PVC Pipe 125mm Ø, 6mm wall thickness	125 mm	
PVC Pipe 140mm Ø, 6.1-7.5mm wall thickness	140 mm	
PVC Pipe 140mm Ø, 6.2-9.5mm wall thickness	160 mm	

**Construction details:**

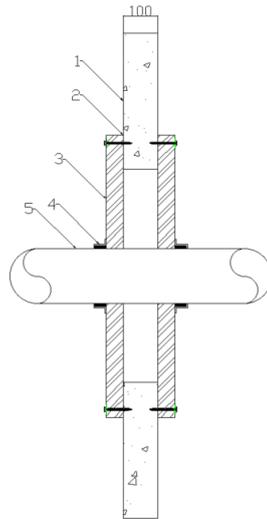
- Single layer of FIREPRO® Ablative Coated Batt pattress installed both sides of the wall Plastic Pipes
- Max. Aperture size 730mm wide x 1200mm high
- Pattress installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- Collars secured both faces of the substrate utilizing 80mm long pig tail screw through to the FIREPRO® Ablative Coated Batt



Penetration Specification	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 1.8mm wall thickness	32 mm	<b>EI 60 U/C</b>
PVC Pipe 40mm Ø, 1.8mm wall thickness	40 mm	
PVC Pipe 50mm Ø, 1.8mm wall thickness	50 mm	
PVC Pipe 55mm Ø, 1.8-2.3mm wall thickness	55 mm	
PVC Pipe 63mm Ø, 2.3-3mm wall thickness	63 mm	
PVC Pipe 75mm Ø, 3.1-4.8mm wall thickness	75 mm	
PVC Pipe 82mm Ø, 3.1-4.8mm wall thickness	82 mm	
PVC Pipe 90mm Ø, 4.2-7.4mm wall thickness	90 mm	
PVC Pipe 100mm Ø, 4.2-7.4mm wall thickness	100 mm	
PVC Pipe 110mm Ø, 4.2-7.4mm wall thickness	110 mm	
PVC Pipe 125mm Ø, 6mm wall thickness	125 mm	
PVC Pipe 140mm Ø, 6.1-7.5mm wall thickness	140 mm	
PVC Pipe 140mm Ø, 6.2-9.5mm wall thickness	160 mm	

**Construction details:**

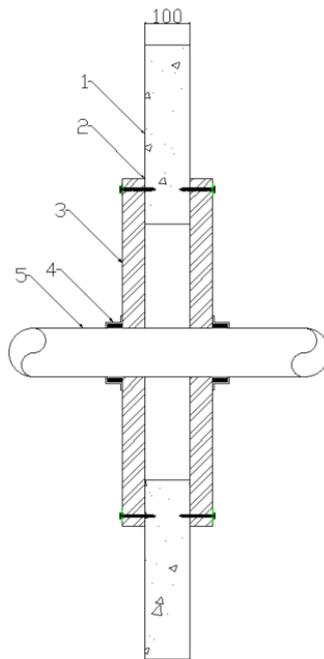
- Single layer of FIREPRO® Ablative Coated Batt pattress installed both sides of the wall Plastic Pipes
- Max. Aperture size 730mm wide x 1200mm high
- Pattress installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- Collars secured both faces of the substrate utilizing 80mm long pig tail screw through to the FIREPRO® Ablative Coated Batt
- Penetrations positioned as per option 1 or 2 below. 0 mm distance between services and 50 mm to edge of seal.



Penetration Specification	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 2.9mm wall thickness	32 mm	<b>EI 120 U/C</b>
PVC Pipe 40mm Ø, 2.9mm wall thickness	40 mm	
PVC Pipe 50mm Ø, 2.9mm wall thickness	50 mm	
PVC Pipe 55mm Ø, 2.9-4.4mm wall thickness	55 mm	
PVC Pipe 63mm Ø, 2.9-4.4mm wall thickness	63 mm	
PVC Pipe 75mm Ø, 2.8-6.7mm wall thickness	75 mm	
PVC Pipe 82mm Ø, 2.8-6.7mm wall thickness	82 mm	
PVC Pipe 90mm Ø, 2.7-10mm wall thickness	90 mm	
PVC Pipe 100mm Ø, 2.7-10mm wall thickness	100 mm	
PVC Pipe 110mm Ø, 2.7-10mm wall thickness	110 mm	
PVC Pipe 125mm Ø, 3.1mm wall thickness	125 mm	
PVC Pipe 140mm Ø, 3.5-8mm wall thickness	140 mm	
PVC Pipe 140mm Ø, 4-14.6mm wall thickness	160 mm	

**Construction details:**

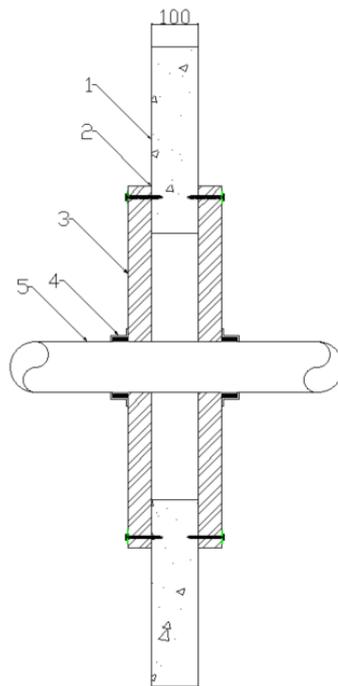
- Single layer of FIREPRO® Ablative Coated Batt pattress installed both sides of the wall Plastic Pipes
- Max. Aperture size 2600mm wide x 2600mm high
- Pattress installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- Collars secured both faces of the substrate utilizing 80mm long pig tail screw through to the FIREPRO® Ablative Coated Batt
- Penetrations positioned as per option 1 or 2 below. 0 mm distance between services and 50 mm to edge of seal.



Penetration Specification	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 2.9mm wall thickness	32 mm	<b>EI 60 U/C</b>
PVC Pipe 40mm Ø, 2.9mm wall thickness	40 mm	
PVC Pipe 50mm Ø, 2.9mm wall thickness	50 mm	
PVC Pipe 55mm Ø, 2.9-4.4mm wall thickness	55 mm	
PVC Pipe 63mm Ø, 2.9-4.4mm wall thickness	63 mm	
PVC Pipe 75mm Ø, 2.8-6.7mm wall thickness	75 mm	
PVC Pipe 82mm Ø, 2.8-6.7mm wall thickness	82 mm	
PVC Pipe 90mm Ø, 2.7-10mm wall thickness	90 mm	
PVC Pipe 100mm Ø, 2.7-10mm wall thickness	100 mm	
PVC Pipe 110mm Ø, 2.7-10mm wall thickness	110 mm	
PVC Pipe 125mm Ø, 3.1mm wall thickness	125 mm	
PVC Pipe 140mm Ø, 3.5-8mm wall thickness	140 mm	
PVC Pipe 140mm Ø, 4-14.6mm wall thickness	160 mm	

**Construction details:**

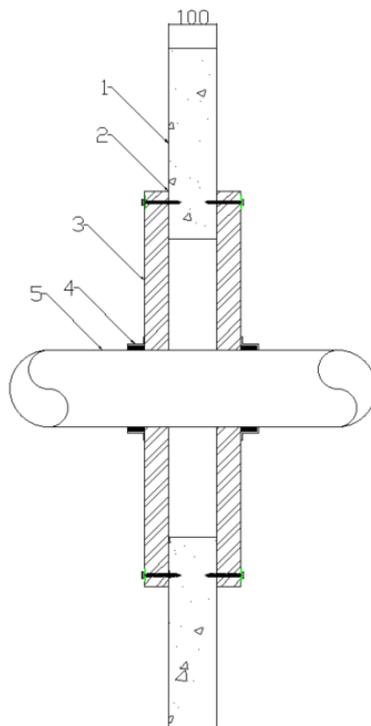
- Single layer of FIREPRO® Ablative Coated Batt pattress installed both sides of the wall Plastic Pipes
- Max. Aperture size 730mm wide x 1200mm high
- Pattress installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- Collars secured both faces of the substrate utilizing 80mm long pig tail screw through to the FIREPRO® Ablative Coated Batt
- Penetrations positioned as per option 1 or 2 below. 0 mm distance between services and 50 mm to edge of seal.



Penetration Specification	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 2.9mm wall thickness	32 mm	<b>EI 120 U/C</b>
PVC Pipe 40mm Ø, 2.9mm wall thickness	40 mm	
PVC Pipe 50mm Ø, 2.9mm wall thickness	50 mm	
PVC Pipe 55mm Ø, 2.9-4.4mm wall thickness	55 mm	
PVC Pipe 63mm Ø, 2.9-4.4mm wall thickness	63 mm	
PVC Pipe 75mm Ø, 2.8-6.7mm wall thickness	75 mm	
PVC Pipe 82mm Ø, 2.8-6.7mm wall thickness	82 mm	
PVC Pipe 90mm Ø, 2.7-10mm wall thickness	90 mm	
PVC Pipe 100mm Ø, 2.7-10mm wall thickness	100 mm	
PVC Pipe 110mm Ø, 2.7-10mm wall thickness	110 mm	
PVC Pipe 125mm Ø, 3.1mm wall thickness	125 mm	
PVC Pipe 140mm Ø, 3.9-5.8mm wall thickness	140 mm	
PVC Pipe 140mm Ø, 4.9-9.5mm wall thickness	160 mm	

**Construction details:**

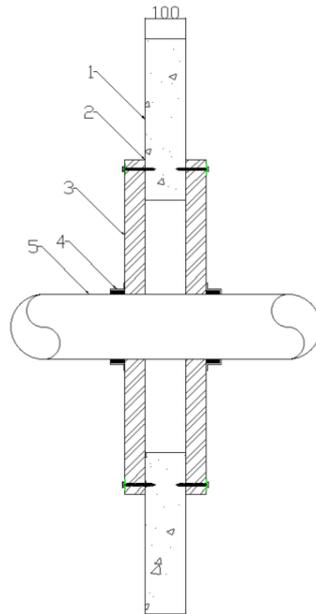
- Single layer of FIREPRO® Ablative Coated Batt pattress installed both sides of the wall Plastic Pipes
- Max. Aperture size 730mm wide x 1200mm high
- Pattress installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- Collars secured both faces of the substrate utilizing 80mm long pig tail screw through to the FIREPRO® Ablative Coated Batt
- Penetrations positioned as per option 1 or 2 below. 0 mm distance between services and 50 mm to edge of seal.



Penetration Specification	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 2.9mm wall thickness	32 mm	<b>EI 60 U/C</b>
PVC Pipe 40mm Ø, 2.9mm wall thickness	40 mm	
PVC Pipe 50mm Ø, 2.9mm wall thickness	50 mm	
PVC Pipe 55mm Ø, 2.9-4.4mm wall thickness	55 mm	
PVC Pipe 63mm Ø, 2.9-4.4mm wall thickness	63 mm	
PVC Pipe 75mm Ø, 2.8-6.7mm wall thickness	75 mm	
PVC Pipe 82mm Ø, 2.8-6.7mm wall thickness	82 mm	
PVC Pipe 90mm Ø, 2.7-10mm wall thickness	90 mm	
PVC Pipe 100mm Ø, 2.7-10mm wall thickness	100 mm	
PVC Pipe 110mm Ø, 2.7-10mm wall thickness	110 mm	
PVC Pipe 125mm Ø, 3.1mm wall thickness	125 mm	
PVC Pipe 140mm Ø, 3.9-5.8mm wall thickness	140 mm	
PVC Pipe 140mm Ø, 4.9-9.5mm wall thickness	160 mm	

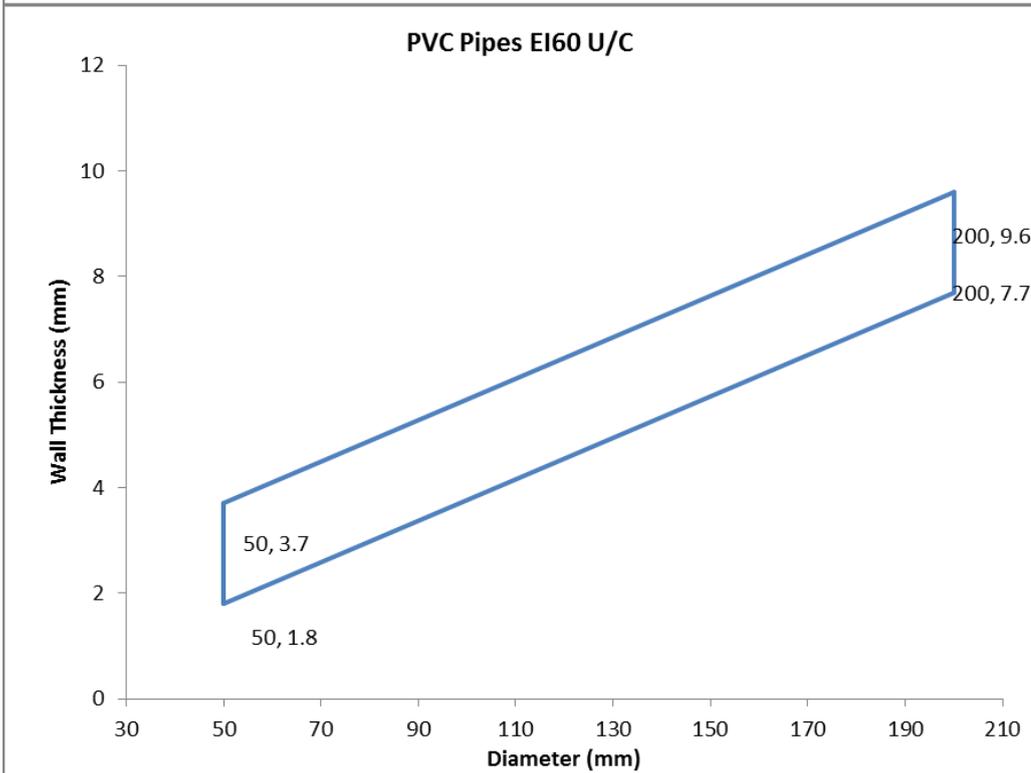
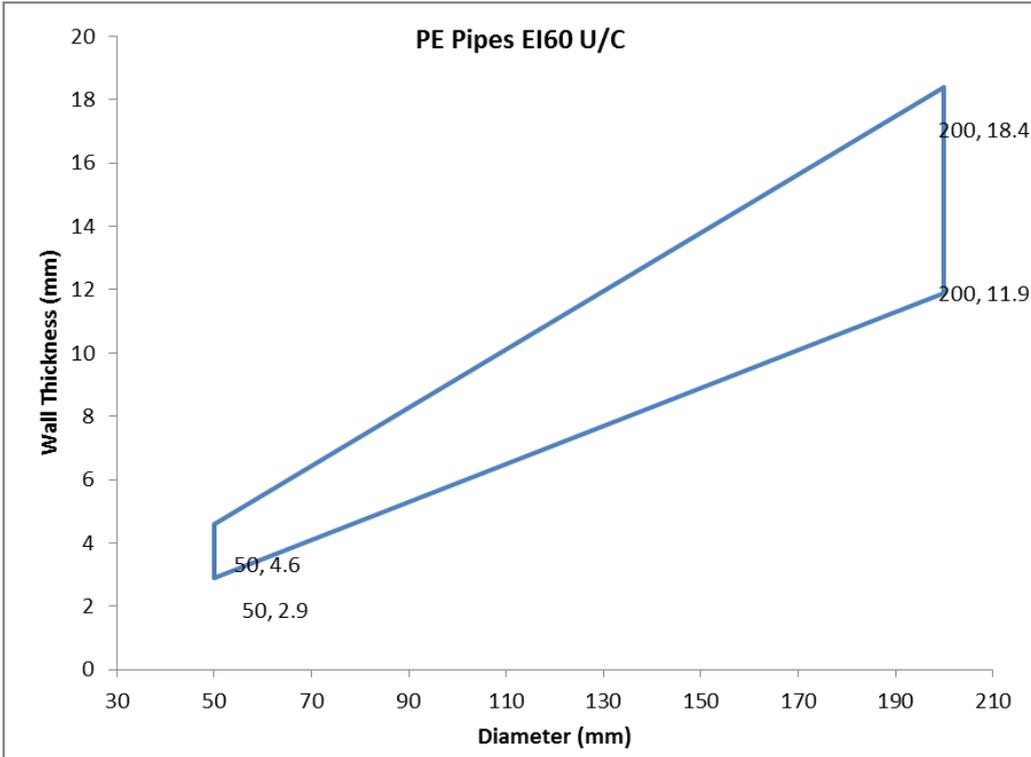
**Construction details:**

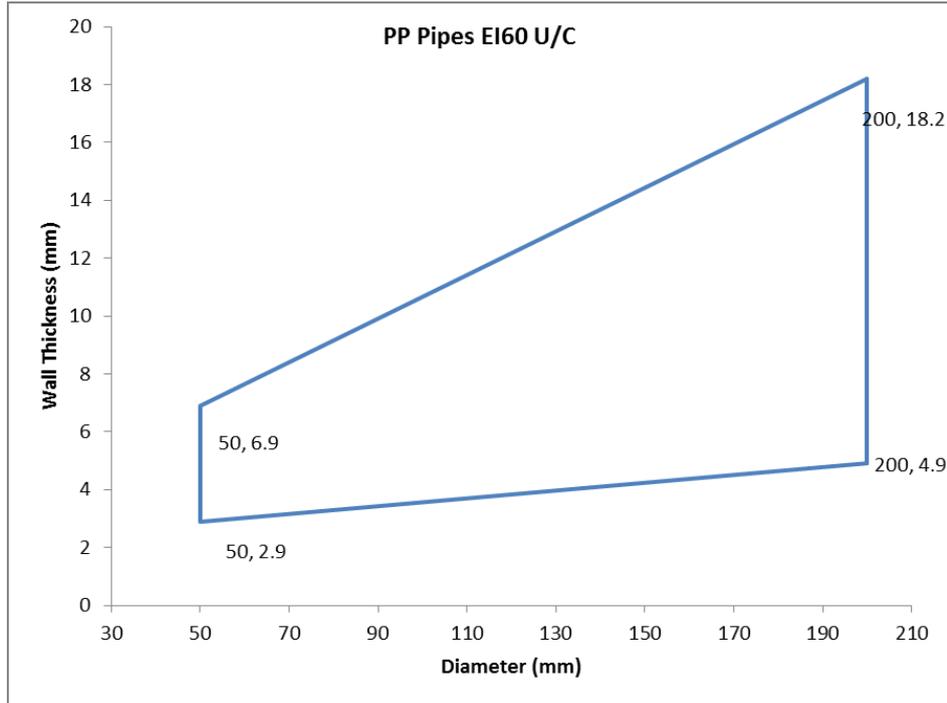
- Single layer of FIREPRO® Ablative Coated Batt pattress installed both sides of the wall Plastic Pipes
- Max. Aperture size 2600mm wide x 2600mm high
- Pattress installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- Collars secured both faces of the substrate utilizing 80mm long pig tail screw through to the FIREPRO® Ablative Coated Batt
- Penetrations positioned as per option 1 or 2 below. 0 mm distance between services and 50 mm to edge of seal.



**Scope and Classifications as below**

Intumescent Thickness	
Pipe Diameter	Intumescent Material
ø 32 mm - ø 50 mm	40 mm (W) x 2 mm (T)
ø 51 mm - ø 82 mm	40 mm (W) x 4 mm (T)
ø 83 mm - ø 115 mm	40 mm (W) x 6 mm (T)
ø 116 mm - ø 160 mm	40 mm (W) x 8 mm (T)
ø 161 mm - ø 200 mm	40 mm (W) x 10 mm (T)
ø 201 mm - ø 250 mm	40 mm (W) x 12 mm (T)





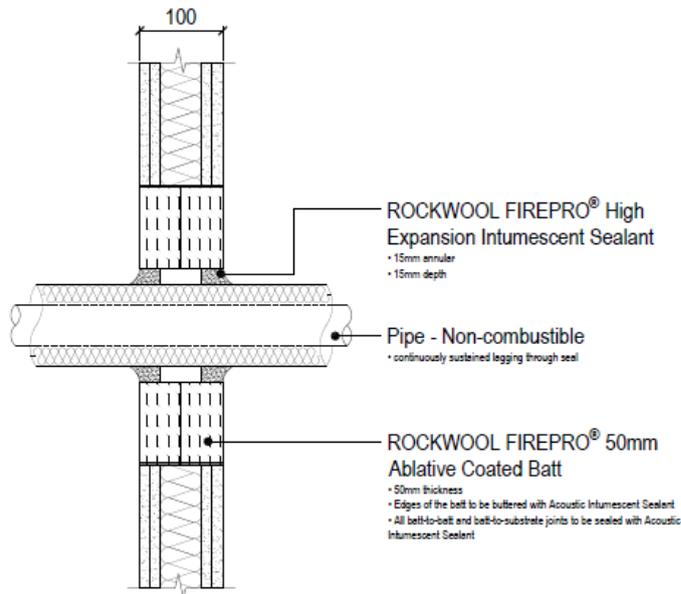
## B23 Metallic Pipe Penetrations

### B23.1 Double Layer (50mm) FIREPRO® Ablative Coated Batt

#### Penetration 23.1.1 Metallic Pipes

**Construction details:**

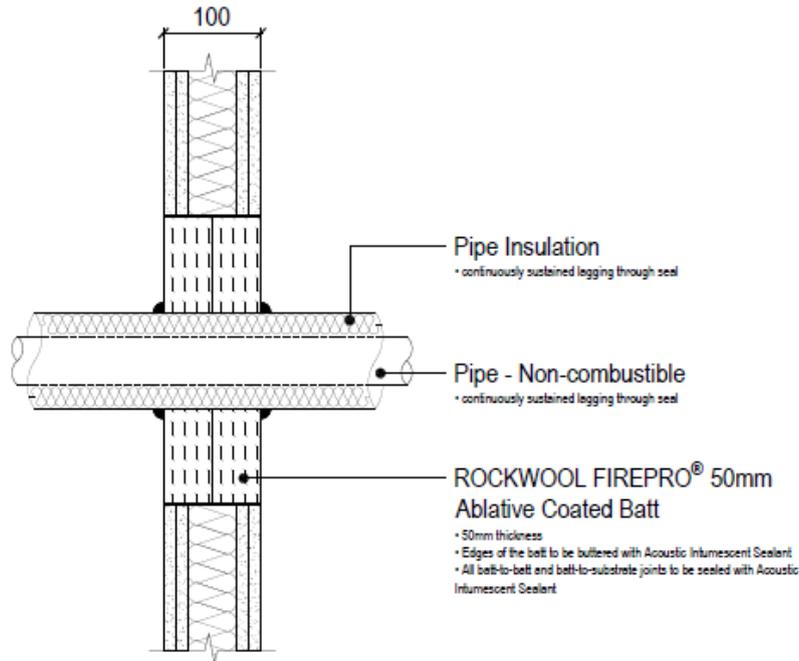
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 730mm wide x 1200mm high
- Continuous / Sustained CS insulated metallic pipes
- 15mm deep x 15mm wide annulus FIREPRO® High Expansion Intumescent Sealant to both faces
- First service support 250mm from both faces of the substrate



Service(s)	Classification
Single copper or mild steel pipe 40mm diameter and 1.5 – 14.2 mm wall with sustained/continuous 20mm thick foil faced glass wool insulation (min 80Kg/m <sup>3</sup> )	<b>E 90 U/C</b> <b>EI 60 U/C</b>
Single copper or mild steel pipe 40-159mm diameter and 2.3 – 14.2 mm wall with sustained/continuous 30mm thick foil faced glass wool insulation (min 80Kg/m <sup>3</sup> )	<b>EI 60 U/C</b>

**Construction details:**

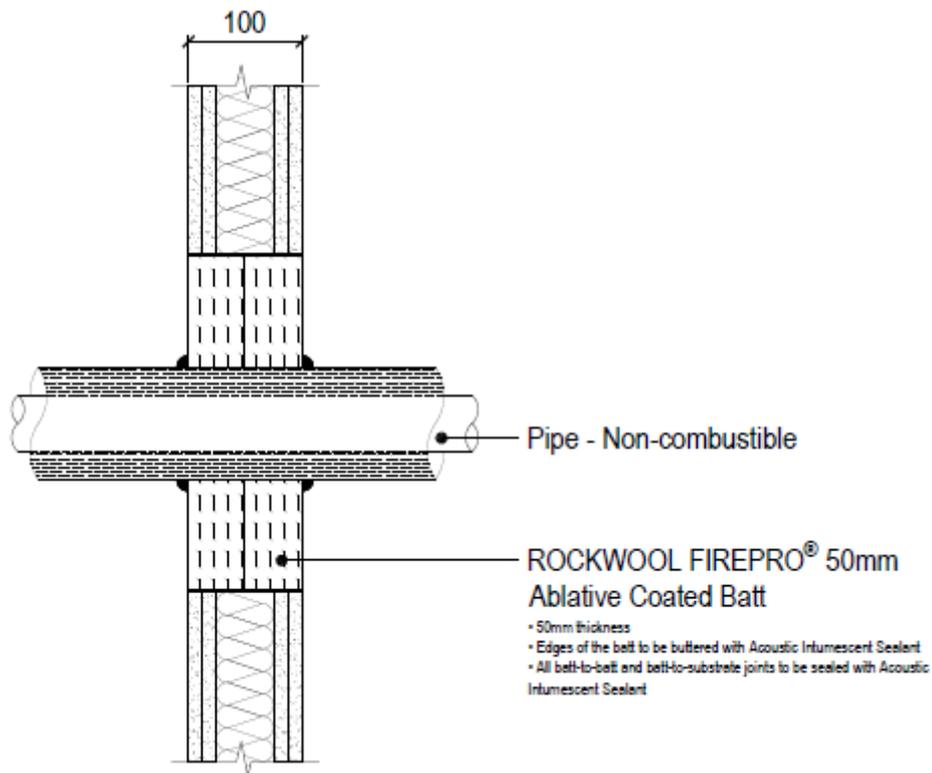
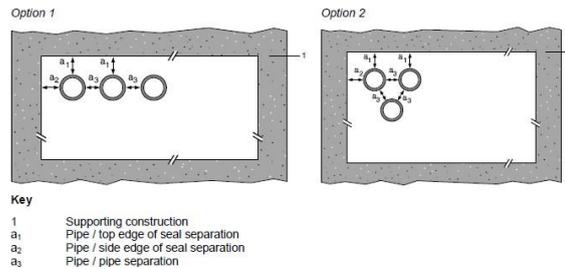
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 600mm wide x 600mm high
- Continuous / Sustained CS insulated metallic pipes
- First service support 400mm from both faces of the substrate



Service(s)	Classification
Steel or Copper Pipe 42-159mm Ø, 1.2mm – 14.2mm wall thickness. 25mm thick foil faced glassfibre insulation min. 30kg/m <sup>3</sup> (C/S)	<b>E 120 C/U</b> <b>EI 45 C/U</b>
Steel or Copper Pipe 42mm Ø, 1mm – 14.2mm wall thickness. 25mm thick foil faced glassfibre insulation min. 30kg/m <sup>3</sup> (C/S)	<b>E 120 C/U</b> <b>EI 60 C/U</b>

**Construction details:**

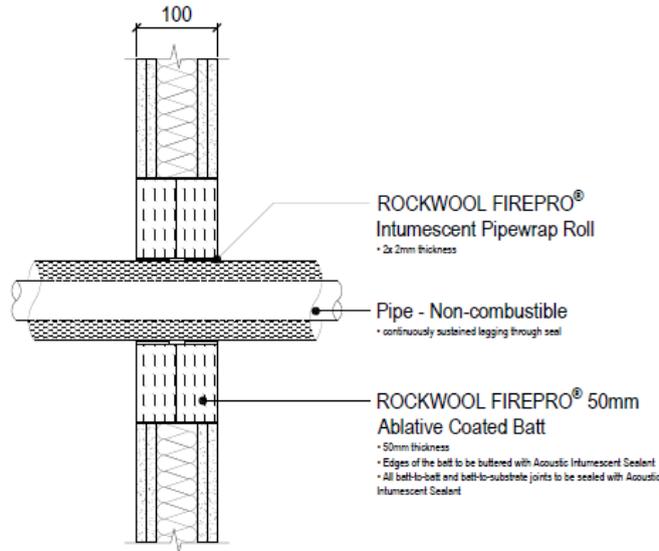
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 730mm wide x 1200mm high
- L/I insulated (400 mm) metallic pipes.
- Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal.
- First service support 400mm from both faces of the substrate.



Service(s)	Classification
Steel or Copper Pipe 42-159mm Ø, 1.2mm – 14.2mm wall thickness 40mm thick stone wool insulation min. 40kg/m <sup>3</sup> (L/I 400mm)	EI 45 C/U
Steel 42-324mm Ø, 16mm wall thickness. 40mm thick stone wool insulation min. 40kg/m <sup>3</sup> (L/I 400mm)	EI 45 C/U
Steel or Copper Pipe 42-159mm Ø, 1.2mm – 14.2mm wall thickness PST coating along the penetration 2mm DFT (L/I 400mm)	E 120 C/U EI 45 C/U
Steel 42-324mm Ø, 16mm wall thickness. 14.2mm wall thickness PST coating along the penetration 2mm DFT (L/I 400mm)	E 120 C/U EI 45 C/U

**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 750mm wide x 1200mm high
- Continuous / Sustained CS insulated metallic pipes
- 2 x 2mm thick layers of FIREPRO® Intumescent Pipe Wrap Roll installed both sides of the FIREPRO® Ablative Coated Batt
- First service support 400mm from both faces of the substrate



Service(s)	Classification
Steel or Copper Pipe 42-159mm Ø, 1.2mm – 14.2mm wall thickness. 13-25mm thick K Flex ST Insulation (C/S)	<b>E 120 C/U</b> <b>EI 60 C/U</b>
Steel or Copper Pipe 42mm Ø, 1 – 14.2mm wall thickness. 25-13mm thick K Flex ST insulation (C/S)	<b>E 120 C/U</b> <b>EI 90 C/U</b>
<sup>1</sup> Steel or Copper Pipe 42-108mm Ø, 1.2 – 14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM insulation (C/S)	<b>E 120 C/U</b> <b>EI 60 C/U</b>
Steel or Copper Pipe 42mm Ø, 1–14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM insulation (C/S)	<b>E 120 C/U</b> <b>EI 90 C/U</b>
<sup>1</sup> Steel or Copper Pipe 42mm Ø, 1.2–14.2mm wall thickness. 50mm thick glassfibre insulation (C/S)	<b>E 120 C/U</b> <b>EI 90 C/U</b>

## B24 Plastic Pipe Penetrations

### B24.1 Double Layer (50mm) FIREPRO® Ablative Coated Batt Penetration Seal B

#### 24.1.1 Plastic Pipes

**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 730mm wide x 1200mm high
- FIREPRO® Pipe Collar CE secured both faces of the substrate utilizing 80mm long steel pig tail screw through to FIREPRO® Ablative Coated Batt
- Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal.
- First service support 400mm from both faces of the substrate.

**Key**

- 1 Supporting construction
- a<sub>1</sub> Pipe / top edge of seal separation
- a<sub>2</sub> Pipe / side edge of seal separation
- a<sub>3</sub> Pipe / pipe separation

100

ROCKWOOL FIREPRO® Pipe Collar CE  
 • Fixed to batt with 80mm long steel pig tail screws through each fixing tab.

Pipe - Non-combustible  
 • continuously sustained lagging through seal

ROCKWOOL FIREPRO® 50mm Ablative Coated Batt  
 • 50mm thickness  
 • Edges of the batt to be buttered with Acoustic Intumescent Sealant  
 • All batt-to-batt and batt-to-substrate joints to be sealed with Acoustic Intumescent Sealant

Service(s)	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 1.8mm wall thickness	32mm	<b>EI 120 U/C</b>
PVC Pipe 40mm Ø, 1.8mm wall thickness	40mm	
PVC Pipe 50mm Ø, 1.8mm wall thickness	50mm	
PVC Pipe 55mm Ø, 1.8-2.3mm wall thickness	55mm	
PVC Pipe 63mm Ø, 2.3-3mm wall thickness	63mm	
PVC Pipe 75mm Ø, 3.1-4.8mm wall thickness	75mm	
PVC Pipe 82mm Ø, 3.1-4.8mm wall thickness	82mm	
PVC Pipe 90mm Ø, 4.2-7.4mm wall thickness	90mm	
PVC Pipe 100mm Ø, 4.2-7.4mm wall thickness	100mm	
PVC Pipe 110mm Ø, 4.2-7.4mm wall thickness	110mm	
PVC Pipe 125mm Ø, 6mm wall thickness	125mm	
PVC Pipe 140mm Ø, 6.1-7.5mm wall thickness	140mm	
PVC Pipe 160mm Ø, 6.2-9.5mm wall thickness	160mm	

Service(s)	FIREPRO® Pipe Collar CE Ref	Classification
PP Pipe 32mm Ø, 2.9mm wall thickness	32mm	<b>EI 120 U/C</b>
PP Pipe 40mm Ø, 2.9mm wall thickness	40mm	
PP Pipe 50mm Ø, 2.9mm wall thickness	50mm	
PP Pipe 55mm Ø, 2.9-4.4mm wall thickness	55mm	
PP Pipe 63mm Ø, 2.9-4.4mm wall thickness	63mm	
PP Pipe 75mm Ø, 2.8-6.7mm wall thickness	75mm	
PP Pipe 82mm Ø, 2.8-6.7mm wall thickness	82mm	
PP Pipe 90mm Ø, 2.7-10mm wall thickness	90mm	
PP Pipe 100mm Ø, 2.7-10mm wall thickness	100mm	
PP Pipe 110mm Ø, 2.7-10mm wall thickness	110mm	
PP Pipe 125mm Ø, 3.1mm wall thickness	125mm	
PP Pipe 140mm Ø, 3.5-8mm wall thickness	140mm	

Service(s)	FIREPRO® Pipe Collar CE Ref	Classification
PE Pipe 32mm Ø, 2.9mm wall thickness	32mm	<b>EI 120 U/C</b>
PE Pipe 40mm Ø, 2.9mm wall thickness	40mm	
PE Pipe 50mm Ø, 2.9mm wall thickness	50mm	
PE Pipe 55mm Ø, 2.9-4.4mm wall thickness	55mm	
PE Pipe 63mm Ø, 2.9-4.4mm wall thickness	63mm	
PE Pipe 75mm Ø, 2.8-6.7mm wall thickness	75mm	
PE Pipe 82mm Ø, 2.8-6.7mm wall thickness	82mm	
PE Pipe 90mm Ø, 2.7-10mm wall thickness	90mm	
PE Pipe 100mm Ø, 2.7-10mm wall thickness	100mm	
PE Pipe 110mm Ø, 2.7-10mm wall thickness	110mm	
PE Pipe 125mm Ø, 3.1mm wall thickness	125mm	
PE Pipe 140mm Ø, 3.9-5.8mm wall thickness	140mm	
PE Pipe 160mm Ø, 4.9-9.5mm wall thickness	160mm	

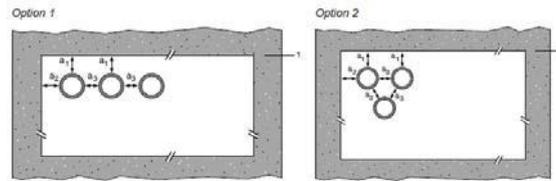
## B25 Insulated Plastic Pipe Penetrations

### B25.1 Double Layer (50mm) FIREPRO® Ablative Coated Batt Penetration

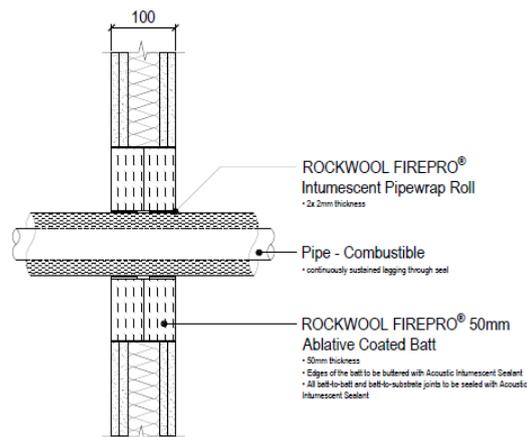
#### Seal B 25.1.1 Insulated Plastic Pipes

##### Construction details:

- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 730mm wide x 1200mm high
- FIREPRO® Intumescent Pipe Wrap Roll secured internally within both faces of the FIREPRO® Ablative Coated Batt
- Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal.
- First service support 400mm from both faces of the substrate.



Key	
1	Supporting construction
a <sub>1</sub>	Pipe / top edge of seal separation
a <sub>2</sub>	Pipe / side edge of seal separation
a <sub>3</sub>	Pipe / pipe separation



Service(s)	FIREPRO® Intumescent Pipe Wrap Roll Ref	Classification
PVC Pipe 40mm Ø, 1.9mm wall thickness. 25 mm thick Kingspan Kooltherm FM insulation (C/S)	3 x 2mm thickness	<b>E 120 U/C</b> <b>EI 90 U/C</b>
PVC Pipe 40mm Ø, 3mm wall thickness. 15 mm thick Kingspan Kooltherm FM insulation (C/S)	3 x 2mm thickness	
PVC Pipe 110mm Ø, 4.2mm wall thickness. 25 mm thick Kingspan Kooltherm FM insulation (C/S)	5 x 2mm thickness	<b>EI 120 U/C</b>
PVC Pipe 110mm Ø, 6.6mm wall thickness. 20 mm thick Kingspan Kooltherm FM insulation (C/S)	5 x 2mm thickness	<b>E 120 U/C</b> <b>EI 90 U/C</b>
PVC Pipe 40mm Ø, 1.9mm wall thickness. 32 mm thick Armacell Armaflex Class O (C/S)	3 x 2mm thickness	<b>E 120 U/C</b> <b>EI 90 U/C</b>
PVC Pipe 40mm Ø, 3mm wall thickness. 9 mm thick Armacell Armaflex Class O (C/S)	3 x 2mm thickness	
PVC Pipe 110mm Ø, 4.2mm wall thickness. 32 mm thick Armacell Armaflex Class O (C/S)	5 x 2mm thickness	<b>EI 120 U/C</b>
PVC Pipe 110mm Ø, 6.6mm wall thickness. 13 mm thick Armacell Armaflex Class O (C/S)	5 x 2mm thickness	<b>E 120 U/C</b> <b>EI 90 U/C</b>

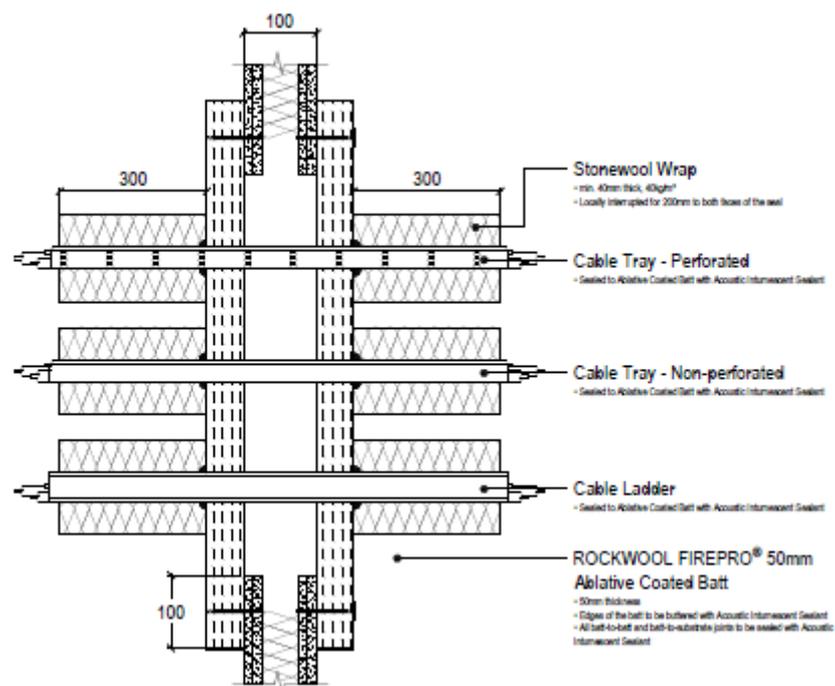
## B26 Single Layer (50mm) FIREPRO® Ablative Coated Batt Pattress Installed Both Faces Penetration Seal

### B26.1 Single Layer (50mm) FIREPRO® Ablative Coated Batt Penetration both faces of the wall

#### 26.1.1 Cable Penetrations

##### Construction details:

- Single layer of FIREPRO® Ablative Coated Batt (50mm) installed both faces of the wall.
- Pattress installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- Max. Aperture size 750mm wide x 1200mm high
- Cables and cable trays wrapped with a single layer of 40mm thick, 40kg/m<sup>3</sup> Stone wool (L/I 300mm)
- First service support 400mm from both faces of the substrate



Service(s)	Classification
Electrical cables up to 80mm Ø	EI 120
Cable Trays and Ladders	
100 mm diameter bundle telecommunication cable type "F"	
Unsheathed electrical cables up to 24mm Ø	
Steel or Copper Conduits up to 16mm Ø	
Plastic conduits up to 16mm Ø	

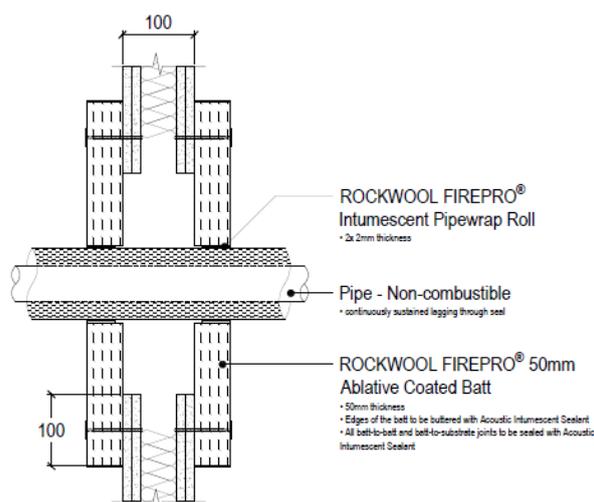
## B27 Single Layer (50mm) FIREPRO® Ablative Coated Batt Pattress Installed Both Faces Penetration Seal

B27.1 Double Layer (50mm) FIREPRO® Ablative Coated Batt Penetration both faces of the wall

### B27.1.1 Metallic Pipe Penetrations

#### Construction details:

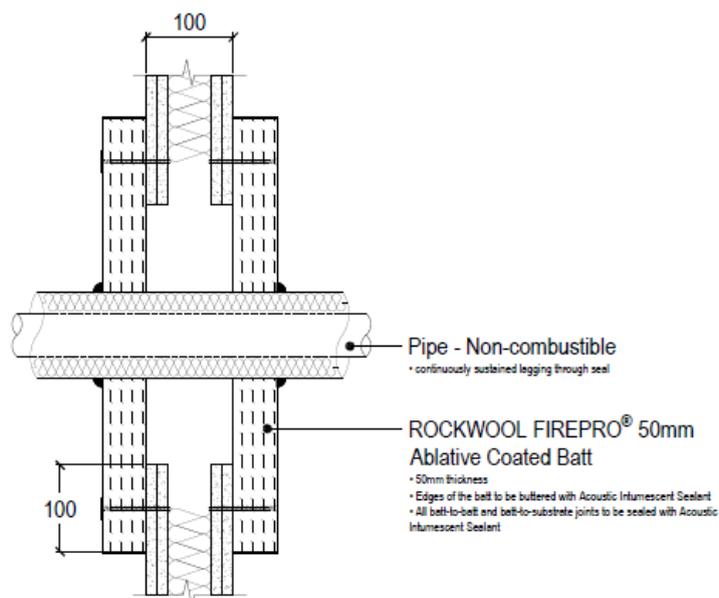
- Single layer of FIREPRO® Ablative Coated Batt (50mm) installed both faces of the wall.
- Pattress installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- Max. Aperture size 750mm wide x 1200mm high
- Continuous / Sustained CS insulated metallic pipes.
- 2 x 2mm thick layers of FIREPRO® Intumescent Pipe Wrap Roll installed both sides of the FIREPRO® Ablative Coated Batt
- First service support 400mm from both faces of the substrate



Service(s)	Classification
<sup>2</sup> Steel or Copper Pipe 42-159mm Ø, 1.2mm – 14.2mm wall thickness. 13-25mm thick K Flex ST Insulation (C/S)	<b>E 120 C/U</b> <b>EI 60 C/U</b>
<sup>2</sup> Steel or Copper Pipe 42-159mm Ø, 1.2 – 14.2mm wall thickness. 25mm thick K Flex ST insulation (C/S)	<b>E 120 C/U</b> <b>EI 90 C/U</b>
<sup>2</sup> Steel or Copper Pipe 42mm Ø, 1 – 14.2mm wall thickness. 25-13mm thick K Flex ST insulation (C/S)	<b>EI 120 C/U</b>
<sup>2</sup> Steel or Copper Pipe 42-108mm Ø, 1.2 – 14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM insulation (C/S)	<b>E 120 C/U</b> <b>EI 90 C/U</b>
<sup>2</sup> Steel or Copper Pipe 42mm Ø, 1–14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM insulation (C/S)	<b>EI 120 C/U</b>
<sup>2</sup> Steel or Copper Pipe 42mm Ø, 1.2–14.2mm wall thickness. 50mm thick glassfibre insulation min. 30kg/m <sup>3</sup> (C/S)	<b>E 120 C/U</b> <b>EI 90 C/U</b>

**Construction details:**

- Single layer of FIREPRO® Ablative Coated Batt (50mm) installed both faces of the wall.
- Pattern installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- Max. Aperture size 600mm wide x 600mm high
- Continuous / Sustained CS insulated metallic pipes.
- First service support 400mm from both faces of the substrate



Service(s)	Classification
Steel or Copper Pipe 42-159mm Ø, 1.2mm – 14.2mm wall thickness. 25mm thick foil faced glassfibre insulation min. 30kg/m <sup>3</sup> (C/S)	<b>E 120 C/U</b> <b>EI 90 C/U</b>
Steel or Copper Pipe 42mm Ø, 1mm – 14.2mm wall thickness. 25mm thick foil faced glassfibre insulation min. 30kg/m <sup>3</sup> (C/S)	<b>EI 120 C/U</b>

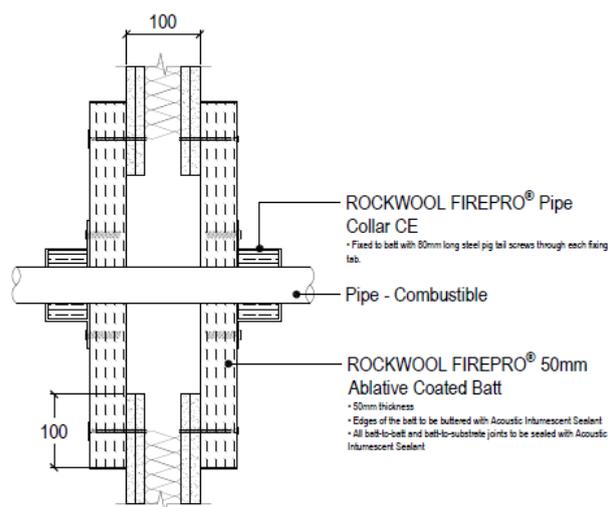
## B28 Single Layer (50mm) FIREPRO® Ablative Coated Batt Pattress Installed Both Faces Penetration Seal

B28.1 Double Layer (50mm) FIREPRO® Ablative Coated Batt Penetration both faces of the wall

### B28.1.1 Plastic Pipe Penetrations

#### Construction details:

- Single layer of FIREPRO® Ablative Coated Batt (50mm) installed both faces of the wall.
- Pattress installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- Max. Aperture size 730mm wide x 1200mm high
- FIREPRO® Pipe Collar CE secured both faces of the substrate utilizing 80mm long steel pig tail screw through to FIREPRO® Ablative Coated Batt
- Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal.
- First service support 400mm from both faces of the substrate.



Service(s)	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 1.8mm wall thickness	32mm	EI 120 U/C
PVC Pipe 40mm Ø, 1.8mm wall thickness	40mm	
PVC Pipe 50mm Ø, 1.8mm wall thickness	50mm	
PVC Pipe 55mm Ø, 1.8-2.3mm wall thickness	55mm	
PVC Pipe 63mm Ø, 2.3-3mm wall thickness	63mm	
PVC Pipe 75mm Ø, 3.1-4.8mm wall thickness	75mm	
PVC Pipe 82mm Ø, 3.1-4.8mm wall thickness	82mm	
PVC Pipe 90mm Ø, 4.2-7.4mm wall thickness	90mm	
PVC Pipe 100mm Ø, 4.2-7.4mm wall thickness	100mm	
PVC Pipe 110mm Ø, 4.2-7.4mm wall thickness	110mm	
PVC Pipe 125mm Ø, 6mm wall thickness	125mm	
PVC Pipe 140mm Ø, 6.1-7.5mm wall thickness	140mm	
PVC Pipe 160mm Ø, 6.2-9.5mm wall thickness	160mm	

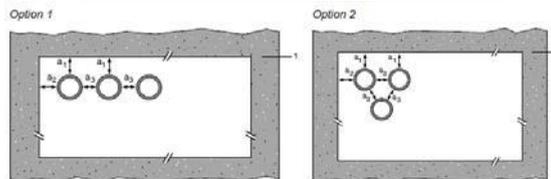
<b>Service(s)</b>	<b>FIREPRO® Pipe Collar CE Ref</b>	<b>Classification</b>
PP Pipe 32mm Ø, 2.9mm wall thickness	32mm	<b>EI 120 U/C</b>
PP Pipe 40mm Ø, 2.9mm wall thickness	40mm	
PP Pipe 50mm Ø, 2.9mm wall thickness	50mm	
PP Pipe 55mm Ø, 2.9-4.4mm wall thickness	55mm	
PP Pipe 63mm Ø, 2.9-4.4mm wall thickness	63mm	
PP Pipe 75mm Ø, 2.8-6.7mm wall thickness	75mm	
PP Pipe 82mm Ø, 2.8-6.7mm wall thickness	82mm	
PP Pipe 90mm Ø, 2.7-10mm wall thickness	90mm	
PP Pipe 100mm Ø, 2.7-10mm wall thickness	100mm	
PP Pipe 110mm Ø, 2.7-10mm wall thickness	110mm	
PP Pipe 125mm Ø, 3.1mm wall thickness	125mm	
PP Pipe 140mm Ø, 3.5-8mm wall thickness	140mm	
PP Pipe 160mm Ø, 4-14.6mm wall thickness	160mm	

<b>Service(s)</b>	<b>FIREPRO® Pipe Collar CE Ref</b>	<b>Classification</b>
PE Pipe 32mm Ø, 2.9mm wall thickness	32mm	<b>EI 120 U/C</b>
PE Pipe 40mm Ø, 2.9mm wall thickness	40mm	
PE Pipe 50mm Ø, 2.9mm wall thickness	50mm	
PE Pipe 55mm Ø, 2.9-4.4mm wall thickness	55mm	
PE Pipe 63mm Ø, 2.9-4.4mm wall thickness	63mm	
PE Pipe 75mm Ø, 2.8-6.7mm wall thickness	75mm	
PE Pipe 82mm Ø, 2.8-6.7mm wall thickness	82mm	
PE Pipe 90mm Ø, 2.7-10mm wall thickness	90mm	
PE Pipe 100mm Ø, 2.7-10mm wall thickness	100mm	
PE Pipe 110mm Ø, 2.7-10mm wall thickness	110mm	
PE Pipe 125mm Ø, 3.1mm wall thickness	125mm	
PE Pipe 140mm Ø, 3.9-5.8mm wall thickness	140mm	
PE Pipe 160mm Ø, 4.9-9.5mm wall thickness	160mm	

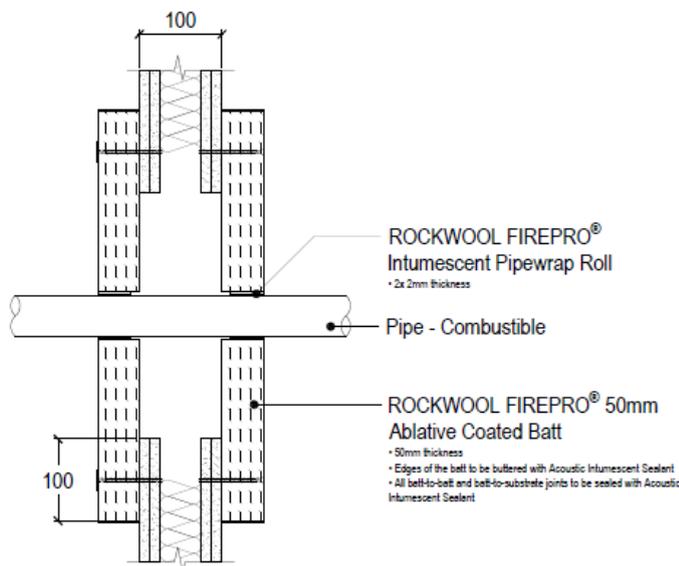
**Construction details:**

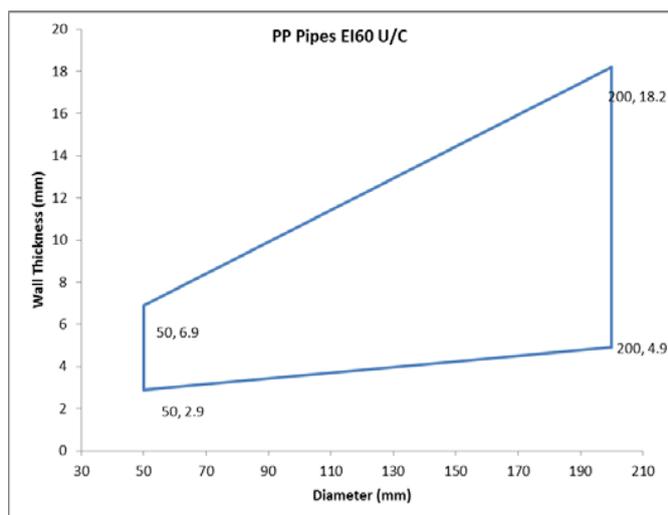
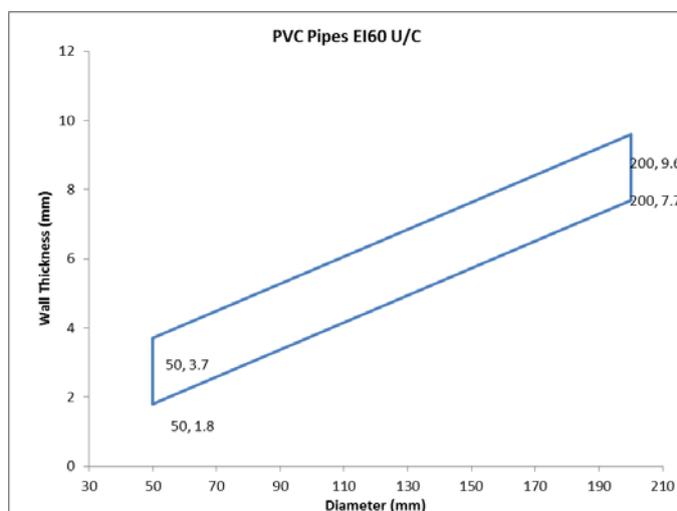
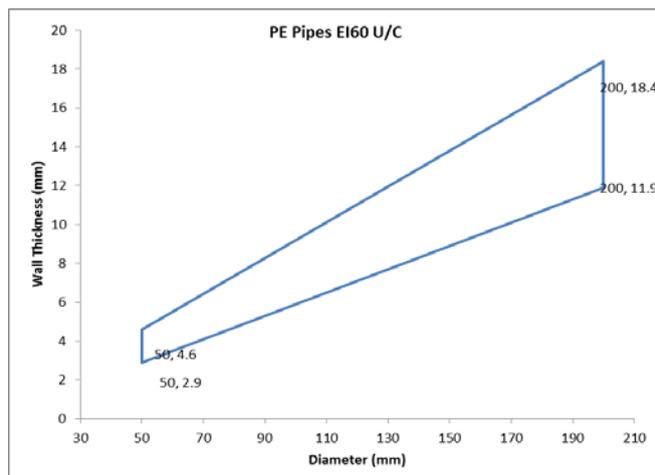
- Single layer of FIREPRO® Ablative Coated Batt (50mm) installed both faces of the wall.
- Pattress installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.
- Max. Aperture size 730mm wide x 1200mm high
- FIREPRO® Intumescent Pipe Wrap CE secured internally within both faces of the FIREPRO® Ablative Coated Batt
- Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal.
- First service support 400mm from both faces of the substrate

Intumescent Thickness	
Pipe Diameter	Intumescent Material
ø 32 mm - ø 50 mm	40 mm (W) x 2 mm (T)
ø 51 mm - ø 82 mm	40 mm (W) x 4 mm (T)
ø 83 mm - ø 115 mm	40 mm (W) x 6 mm (T)
ø 116 mm - ø 160 mm	40 mm (W) x 8 mm (T)
ø 161 mm - ø 200 mm	40 mm (W) x 10 mm (T)
ø 201 mm - ø 250 mm	40 mm (W) x 12 mm (T)



**Key**  
 1 Supporting construction  
 a<sub>1</sub> Pipe / top edge of seal separation  
 a<sub>2</sub> Pipe / side edge of seal separation  
 a<sub>3</sub> Pipe / pipe separation



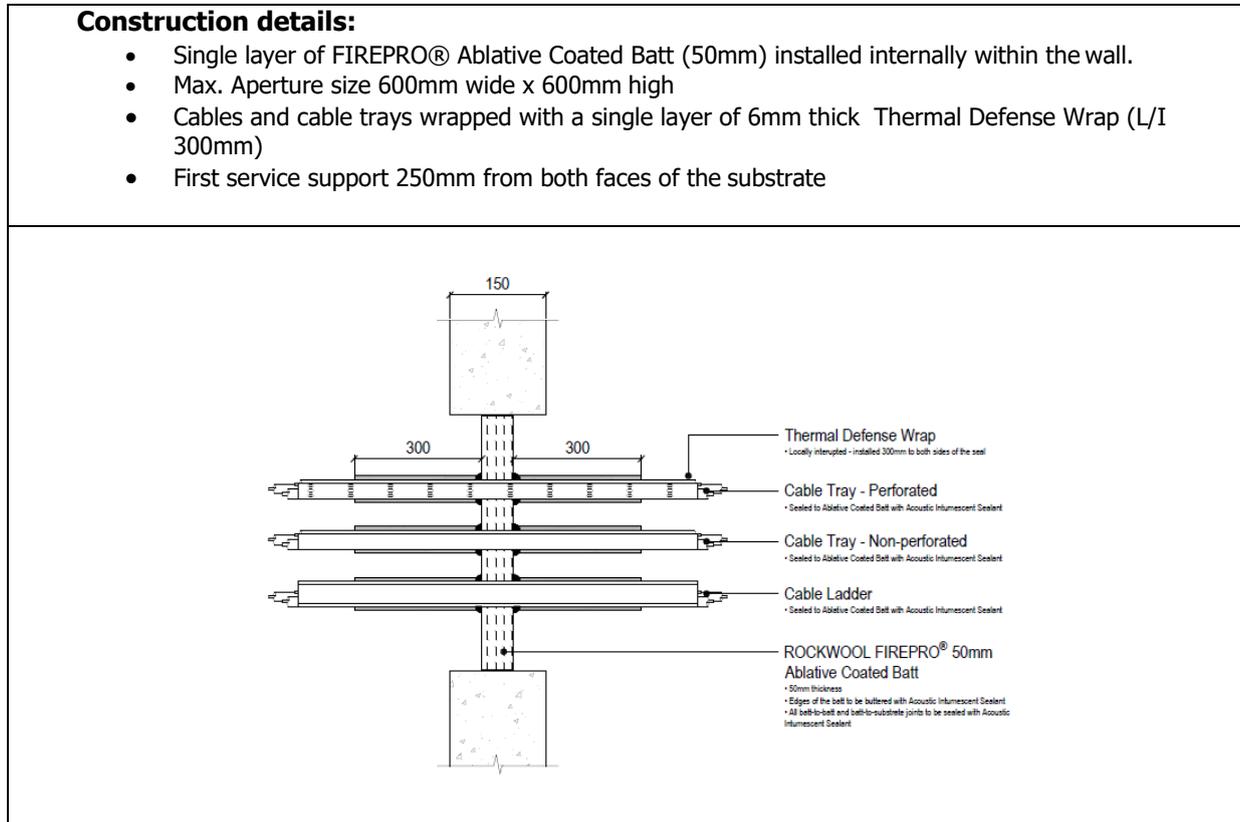


## B29 FIREPRO® Ablative Coated Batt Penetration Seal in Rigid Walls min. 150 mm thick

B29.1 Single Layer (50mm) FIREPRO® Ablative Coated Batt Penetration Seal

B

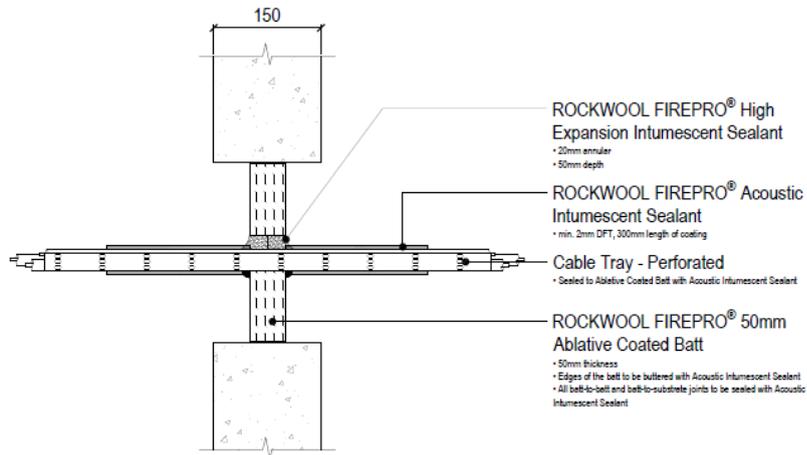
29.1.1 Cable Penetrations



Service(s)	Classification
Electrical cables up to 80mm Ø	EI 60
Cable Trays and Ladders	EI 60
100 mm diameter bundle telecommunication cable type "F"	EI 60
Unsheathed electrical cables up to 24mmØ	EI 60

**Construction details:**

- Single layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 750mm wide x 1100mm high
- All cables coated with 2mm DFT FIREPRO® Ablative Liquid 300mm along the cables both sides of the seal.
- 50mm deep x 20mm wide annulus FIREPRO® High Expansion Intumescent Sealant
- First service support 400mm from both faces of the substrate



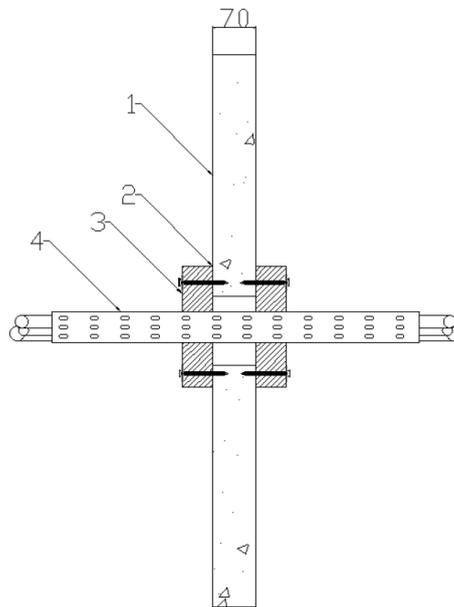
Service(s)	Classification
Perforated cable tray	<b>EI 30</b>
Electrical cables up to 21mm ø	<b>EI 45</b>
1 off 'C1' Cable	
1 off 'C2' Cable	
1 off 'C3' Cable	

## B30 FIREPRO® Ablative Coated Batt Penetration Seal in Rigid Walls min. 70 mm thick

B30.1 Single Layer (50mm) FIREPRO® Ablative Coated Batt  
 Penetration Seal B30.1.1 Cable Penetrations

### Construction details:

- Single layer Pattress FIREPRO® Ablative Coated Batt (50mm), Electrical cables.
- Max. Aperture size 730mm wide x 1200 mm high
- FIREPRO® Acoustic Intumescent Sealant (2)
- FIREPRO® Batt (3)

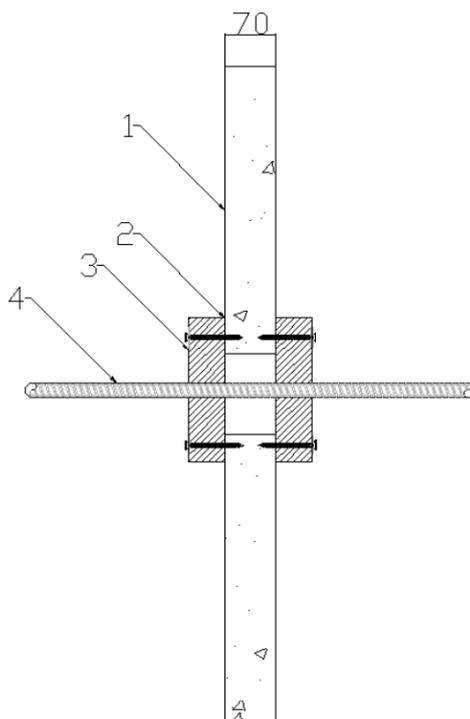


Penetration Specification	Classification
500mm wide x 60mm deep steel cable basket containing 3 x type 'B' cable and 20 x bundle of telecoms cables	<b>EI 90</b>
500mm wide x 60mm deep steel cable tray containing 1 x type 'B' cable, 3 x type 'A1' cable, 3 x type 'A2' cable, and 3 x type 'A3' cable	

Pattress installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed on all edges. Overlap of batts to substrate min 50mm.  
 Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers

**Construction details:**

- Single layer Pattress FIREPRO® Ablative Coated Batt (50mm), Electrical cables and Conduits.
- Max. Aperture size 730mm wide x 1200 mm high
- FIREPRO® Acoustic Intumescent Sealant (2)
- FIREPRO® Batt (3)

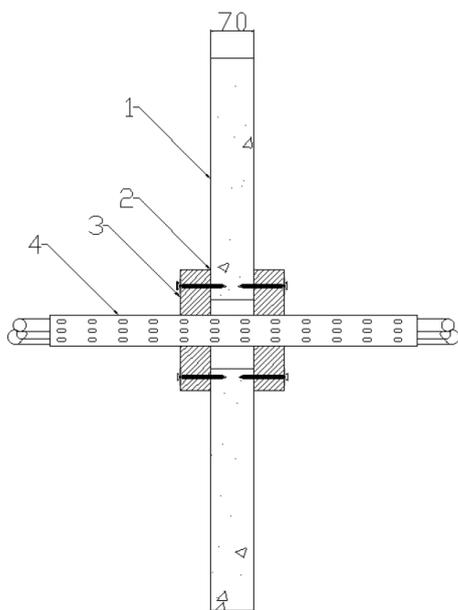


Penetration Specification	Classification
20mm dia Adaptaflex SPL20 flexible conduit	<b>EI 90</b>
20mm dia Kopex KSU 316 stainless steel flexible conduit	
150mm wide x 60mm deep steel cable tray containing 4 x FP200 Gold (Firealarm cable 7mm dia red) Cables	<b>EI 90 EI 60</b>

Pattress installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed on all edges. Overlap of batts to substrate min 50mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centres

**Construction details:**

- Single layer of FIREPRO® Ablative Coated Batt pattress installed both sides of the wall, Electrical cables.
- Max. Aperture size 2600mm wide x 2600 mm high
- Cables and cable trays wrapped with Stone Wool Insulation 45mm thick, 40Kg/m3 (L/I 200mm)
- FIREPRO® Acoustic Intumescent Sealant (2)
- FIREPRO® Batt (3)



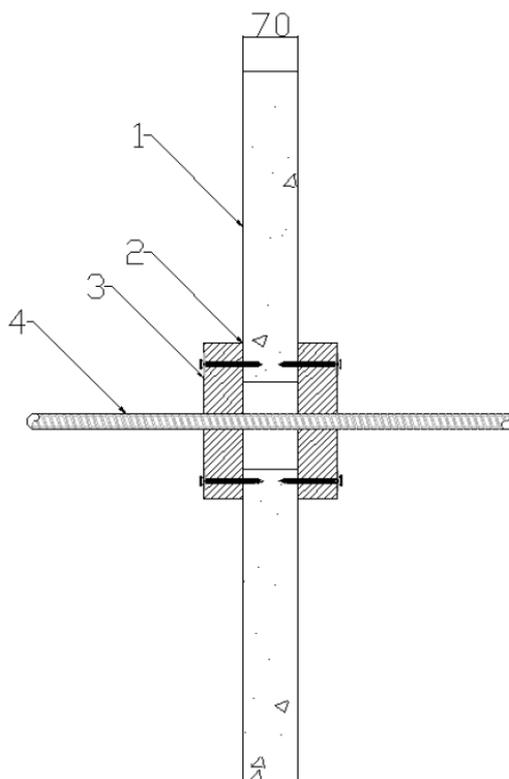
Penetration Specification	Classification
500mm wide x 60mm deep steel cable basket containing 3 x type 'B' cable and 20 x bundle of telecoms cables	<b>EI 60</b>
500mm wide x 60mm deep steel cable tray containing 1 x type 'B' cable, 3 x type 'A1' cable, 3 x type 'A2' cable, and 3 x type 'A3' cable	

Pattress installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed on all edges. Overlap of batts to substrate min 50mm.

Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.

**Construction details:**

- Single layer of FIREPRO® Ablative Coated Batt pattress installed both sides of the wall, Electrical cables and Conduits.
- Max. Aperture size 2600mm wide x 2600 mm high
- FIREPRO® Acoustic Intumescent Sealant (2)
- FIREPRO® Batt (3)



Penetration Specification	Classification
20mm dia Adaptaflex SPL20 flexible conduit	<b>EI 60</b>
20mm dia Kopex KSU 316 stainless steel flexible conduit	
150mm wide x 60mm deep steel cable tray containing 4 x FP200 Gold (Firealarm cable 7mm dia red) Cables	

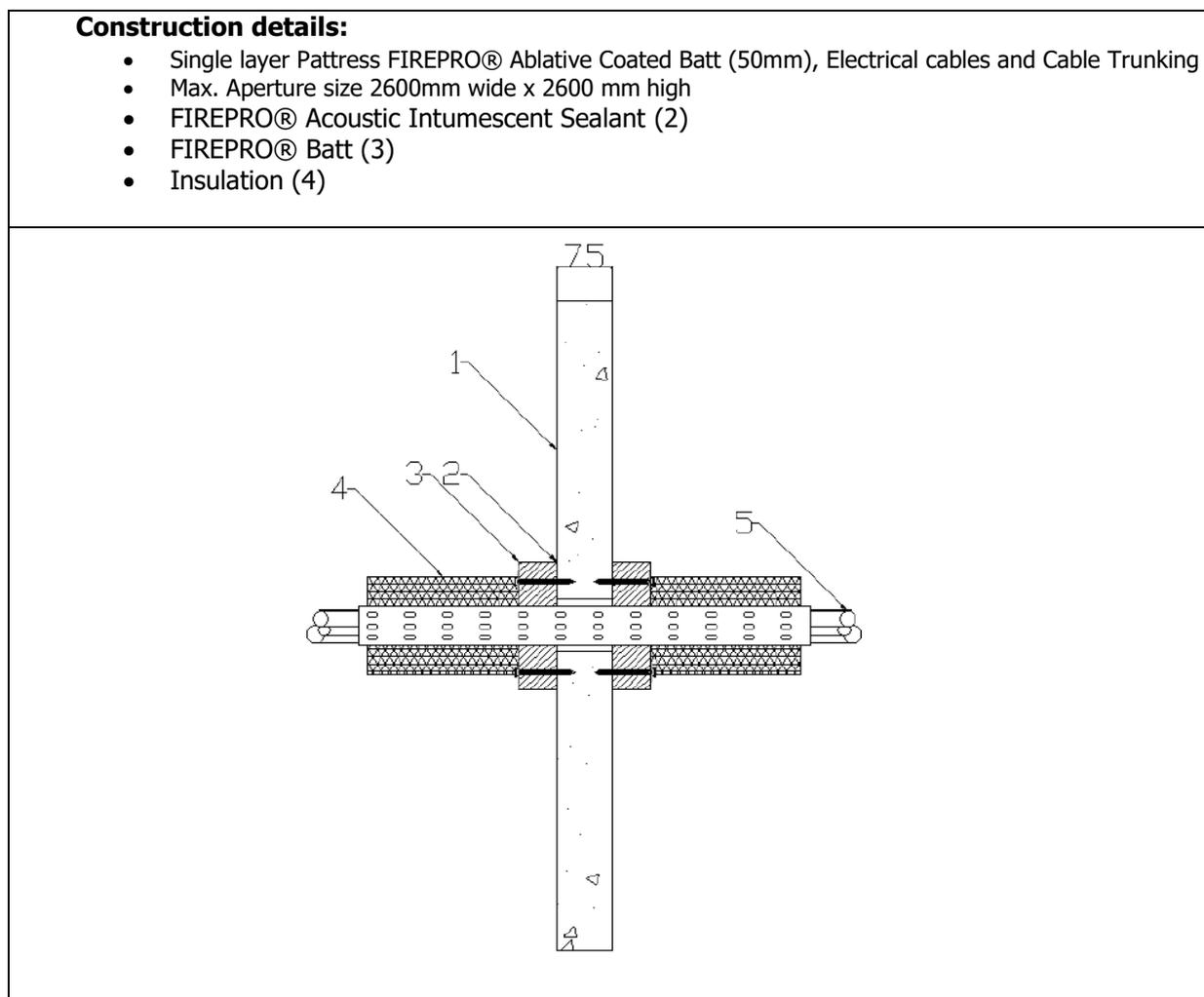
Pattress installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed on all edges. Overlap of batts to substrate min 50mm.

Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers

## B31 FIREPRO® Ablative Coated Batt Penetration Seal in Rigid Walls min. 75 mm thick

B31.1 Single Layer (50mm) FIREPRO® Ablative Coated Batt

Penetration Seal B31.1.1 Cable Penetrations

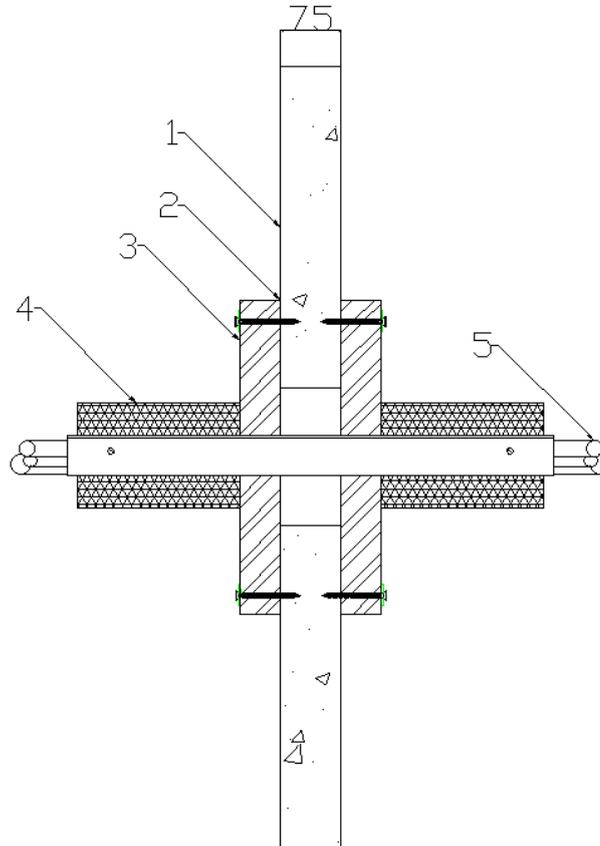


Penetration Specification	Classification
50mm x 50mm Insulated steel cable trunking, Stone Wool 40mm thick, 45kg/m <sup>3</sup> (LI 400mm). FIREPRO® Intumescent Pillow CE tightly fitted around the cables in the section of trunking within the depth of the partition	<b>EI 60 U/U</b>
Cables 1xA1, 1xA2, 1xA3	
Cables 1xA1	<b>EI 60</b>
Cables 1xA2	
Cables 1xA3	

Pattress installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 50mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.

**Construction details:**

- Single layer Pattress FIREPRO® Ablative Coated Batt (50mm), Electrical cables and Cable Trunking
- Max. Aperture size 2600mm wide x 2600 mm high
- FIREPRO® Acoustic Intumescent Sealant (2)
- FIREPRO® Batt (3)
- Insulation (4)



Penetration Specification	Classification
150mm x 150mm Insulated steel cable trunking, Stone Wool 40mm thick, 45kg/m3 (LI 400mm). FIREPRO® Intumescent Pillow CE tightly fitted around the cables in the section of trunking within the depth of the partition	<b>EI 60 U/U</b>
Cables 1xB1, 1xC1, 1xG1, 1xG2	<b>EI 60</b>
Cables 1xB1	
Cables 1xB1	
Cables 1xC1	
Unsheathed electrical cables 0-24 mm dia	

Pattress installation of FIREPRO® Ablative Coated Batt. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 50mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centers.

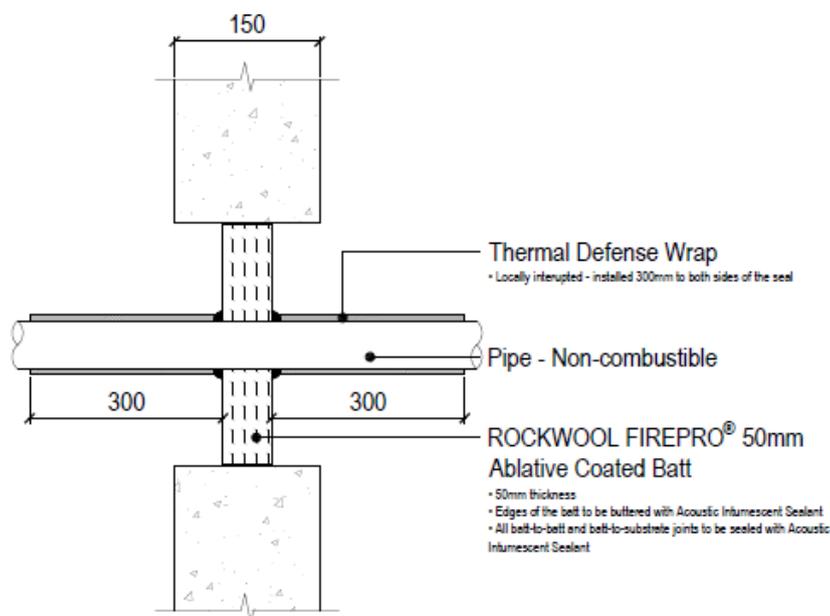
## B32 FIREPRO® Ablative Coated Batt Penetration Seal in Rigid Walls min. 150 mm thick

B32.1 Single Layer (50mm) FIREPRO® Ablative Coated Batt

Penetration Seal B32.1.1 Metallic Pipe Penetrations

### Construction details:

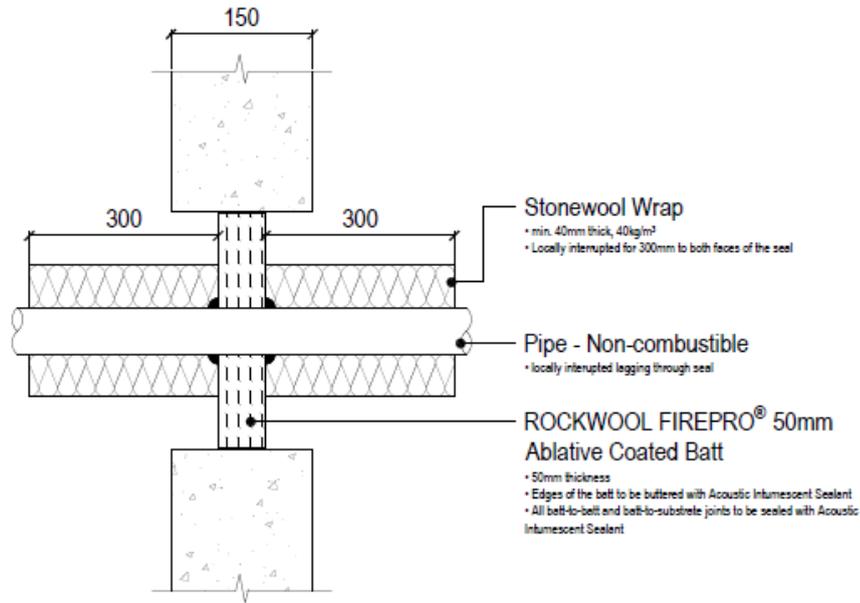
- Single layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 600mm wide x 600mm high
- Metallic pipes wrapped with a single layer of 6mm thick Thermal Defense Wrap (L/I300mm)
- First service support 250mm from both faces of the substrate



Service(s)	Classification
Steel or Copper Pipe 108mm Ø, 1.5mm – 14.2mm Wall Thickness. (C/S) 40mm stone wool insulation (min 140Kg/m <sup>3</sup> )	<b>E 60 C/U</b> <b>EI 45 C/U</b>

**Construction details:**

- Single layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 730mm wide x 1100mm high
- First service support 400mm from both faces of the substrate

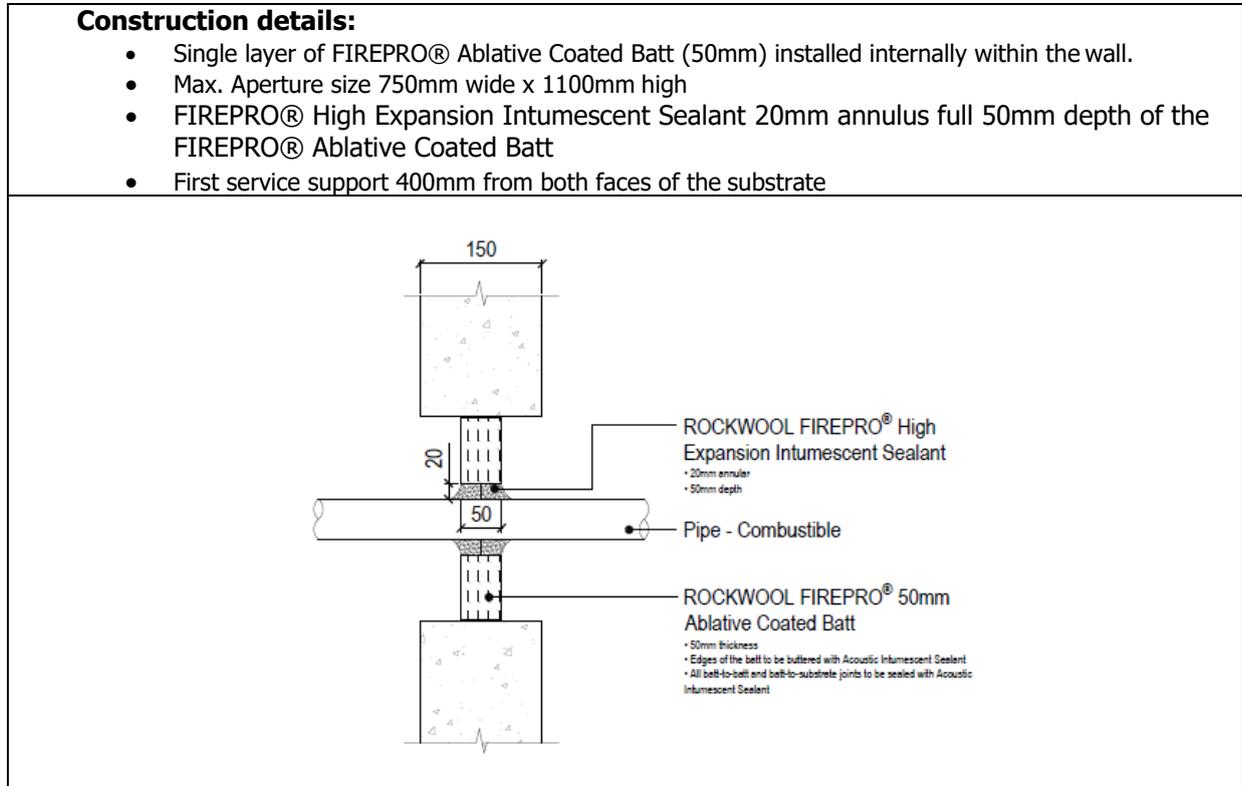


Service(s)	Classification
Steel or Copper Pipe 42mm Ø, 1.2mm – 14.2mm wall thickness. (L/I 300mm) 40mm stone wool insulation (min 40Kg/m <sup>3</sup> )	<b>EI 45 C/U</b>
Steel or Copper Pipe 42mm – 159mm Ø, 2mm – 14.2mm wall thickness. (L/I 300mm) 40mm stone wool insulation (min 40Kg/m <sup>3</sup> )	<b>E 45 C/U</b> <b>EI 15 C/U</b>

### B33 FIREPRO® Ablative Coated Batt Penetration Seal in Rigid Walls min. 150 mm thick

B33.1 Single Layer (50mm) FIREPRO® Ablative Coated Batt

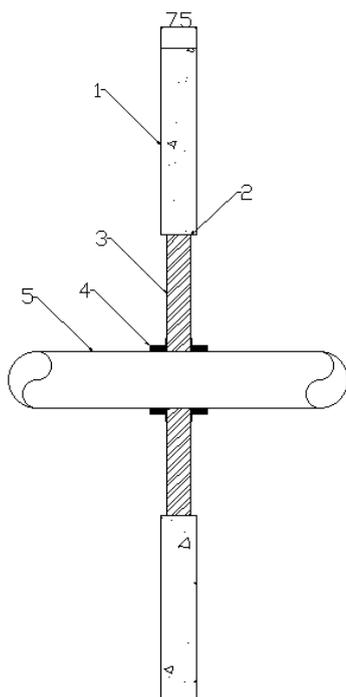
Penetration Seal B33.1.1 Plastic Pipe Penetrations



Penetration Specification	Classification
Uponor MLC (Multi-Layer Composite) Pipe 40mm ø 4mm wall thickness	<b>E 45 U/C</b> <b>EI 30 U/C</b>
Uponor MLC (Multi-Layer Composite) Pipe 50mm ø 4.5mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 63mm ø 6mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 75mm ø 7.5mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 90mm ø 8.5mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 110mm ø 10mm wall thickness	

**Construction details:**

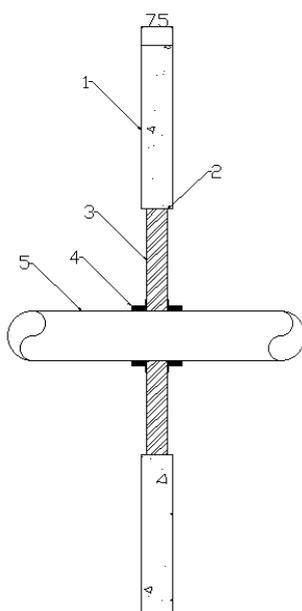
- Single layer of FIREPRO® Ablative Coated Batt (50mm) Plastic Pipes
- Max. Aperture size 600mm wide x 600mm high
- Penetrations positioned as per option 1 or 2 below, 0 mm distance between services and 50 mm to edge of seal
- Collars secured both faces of the substrate utilizing 80 mm long steel pig tail screw through to FIREPRO® Ablative Coated Batt
- FIREPRO® Acoustic Intumescent Sealant (2)
- FIREPRO® Batt (3)
- FIREPRO® Pipe Collar CE (4)
- First service support 400mm from both faces of the substrate



Penetration Specification	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 1.8mm wall thickness	32 mm	<b>EI 60 U/C</b>
PVC Pipe 40mm Ø, 1.8mm wall thickness	40 mm	
PVC Pipe 50mm Ø, 1.8mm wall thickness	50 mm	
PVC Pipe 55mm Ø, 1.8-2.3mm wall thickness	55 mm	
PVC Pipe 63mm Ø, 2.3-3mm wall thickness	63 mm	
PVC Pipe 75mm Ø, 3.1-4.8mm wall thickness	75 mm	
PVC Pipe 82mm Ø, 3.1-4.8mm wall thickness	82 mm	
PVC Pipe 90mm Ø, 4.2-7.4mm wall thickness	90 mm	
PVC Pipe 100mm Ø, 4.2-7.4mm wall thickness	100 mm	
PVC Pipe 110mm Ø, 4.2-7.4mm wall thickness	110 mm	
PVC Pipe 125mm Ø, 6mm wall thickness	125 mm	
PVC Pipe 140mm Ø, 6.1-7.5mm wall thickness	140 mm	

**Construction details:**

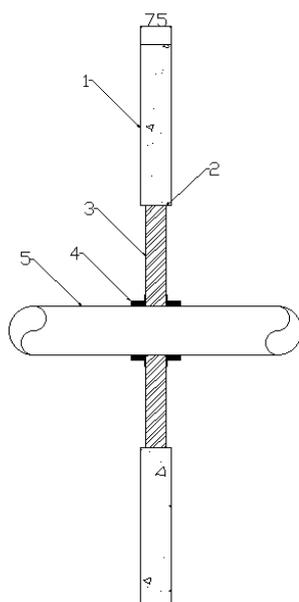
- Single layer of FIREPRO® Ablative Coated Batt (50mm) Plastic Pipes
- Max. Aperture size 600mm wide x 600mm high
- Penetrations positioned as per option 1 or 2 below, 0 mm distance between services and 50 mm to edge of seal
- Collars secured both faces of the substrate utilizing 80 mm long steel pig tail screw through to FIREPRO® Ablative Coated Batt
- FIREPRO® Acoustic Intumescent Sealant (2)
- FIREPRO® Batt (3)
- FIREPRO® Pipe Collar CE (4)
- First service support 400mm from both faces of the substrate



Penetration Specification	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 2.9mm wall thickness	32 mm	<b>EI 60 U/C</b>
PVC Pipe 40mm Ø, 2.9mm wall thickness	40 mm	
PVC Pipe 50mm Ø, 2.9mm wall thickness	50 mm	
PVC Pipe 55mm Ø, 2.9-4.4mm wall thickness	55 mm	
PVC Pipe 63mm Ø, 2.9-4.4mm wall thickness	63 mm	
PVC Pipe 75mm Ø, 2.8-6.7mm wall thickness	75 mm	
PVC Pipe 82mm Ø, 2.8-6.7mm wall thickness	82 mm	
PVC Pipe 90mm Ø, 2.7-10mm wall thickness	90 mm	
PVC Pipe 100mm Ø, 2.7-10mm wall thickness	100 mm	
PVC Pipe 110mm Ø, 2.7-10mm wall thickness	110 mm	
PVC Pipe 125mm Ø, 3.1mm wall thickness	125 mm	
PVC Pipe 140mm Ø, 3.9-8mm wall thickness	140 mm	
PVC Pipe 160mm Ø, 4.9-9.5mm wall thickness	160 mm	

**Construction details:**

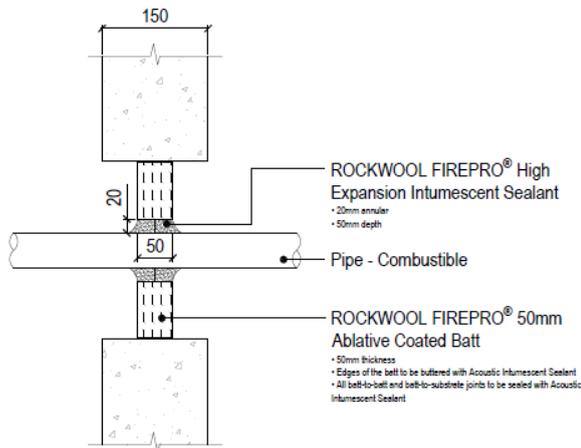
- Single layer of FIREPRO® Ablative Coated Batt (50mm) Plastic Pipes
- Max. Aperture size 600mm wide x 600mm high
- Penetrations positioned as per option 1 or 2 below, 0 mm distance between services and 50 mm to edge of seal
- Collars secured both faces of the substrate utilizing 80 mm long steel pig tail screw through to FIREPRO® Ablative Coated Batt
- FIREPRO® Acoustic Intumescent Sealant (2)
- FIREPRO® Batt (3)
- FIREPRO® Pipe Collar CE (4)
- First service support 400mm from both faces of the substrate



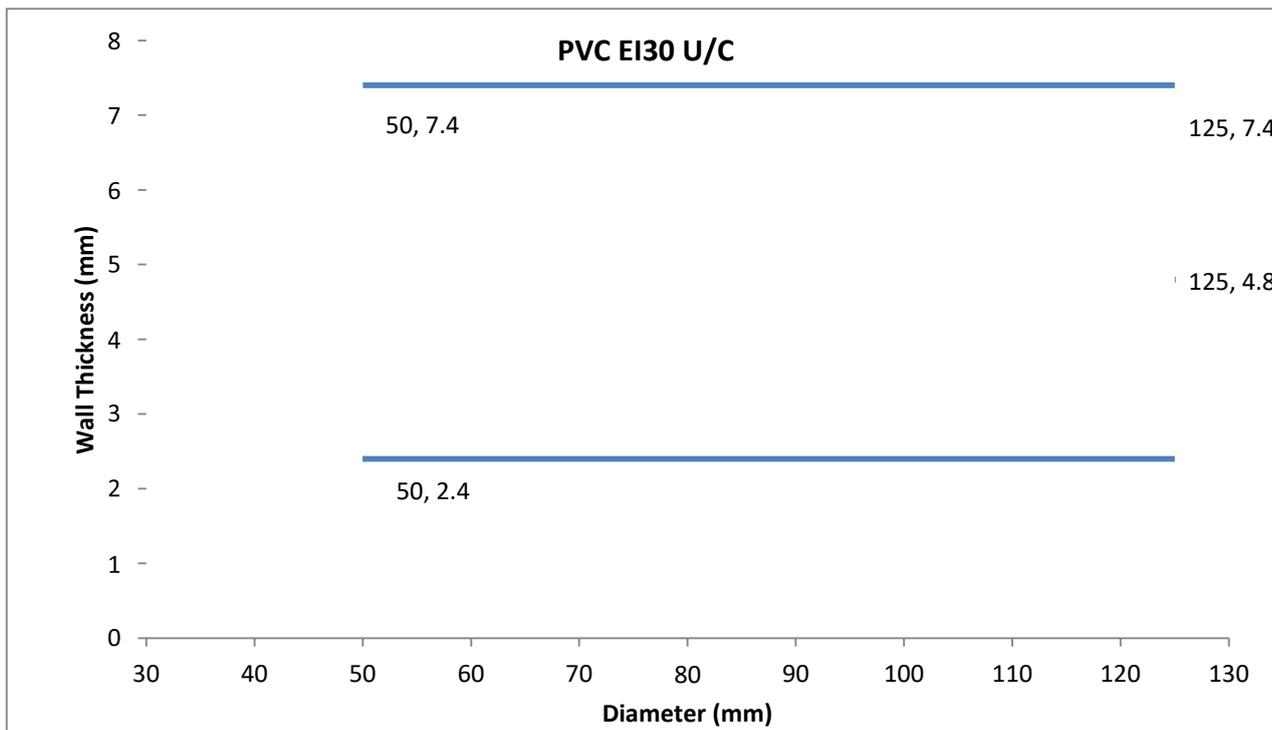
Penetration Specification	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 2.9mm wall thickness	32 mm	<b>EI 60 U/C</b>
PVC Pipe 40mm Ø, 2.9mm wall thickness	40 mm	
PVC Pipe 50mm Ø, 2.9mm wall thickness	50 mm	
PVC Pipe 55mm Ø, 2.9-4.4mm wall thickness	55 mm	
PVC Pipe 63mm Ø, 2.9-4.4mm wall thickness	63 mm	
PVC Pipe 75mm Ø, 2.8-6.7mm wall thickness	75 mm	
PVC Pipe 82mm Ø, 2.8-6.7mm wall thickness	82 mm	
PVC Pipe 90mm Ø, 2.7-10mm wall thickness	90 mm	
PVC Pipe 100mm Ø, 2.7-10mm wall thickness	100 mm	
PVC Pipe 110mm Ø, 2.7-10mm wall thickness	110 mm	
PVC Pipe 125mm Ø, 3.1mm wall thickness	125 mm	
PVC Pipe 140mm Ø, 3.9-8mm wall thickness	140 mm	
PVC Pipe 160mm Ø, 4-14.6mm wall thickness	160 mm	

**Construction details:**

- Single layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 750mm wide x 1100mm high
- FIREPRO® High Expansion Intumescent Sealant 20mm annulus full 50mm depth of the FIREPRO® Ablative Coated Batt
- First service support 400mm from both faces of the substrate



Penetration Specification	Classification
PVC Pipe 50mm $\varnothing$ 2.4-7.4mm wall thickness	<b>EI 45 U/C</b>
Also scope as per graphs below	



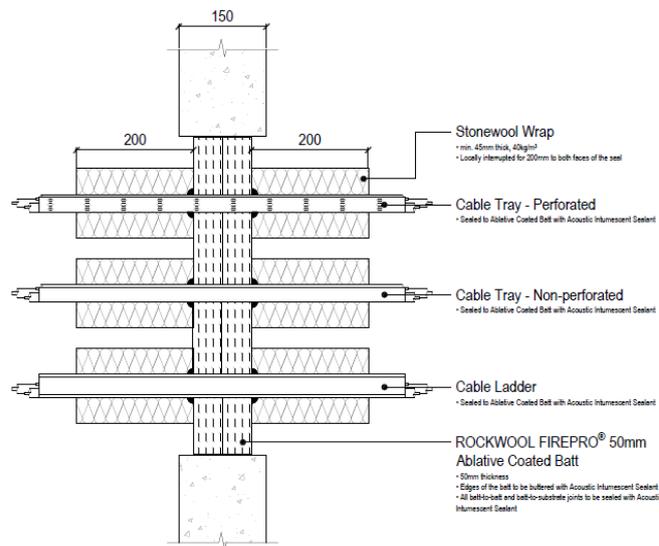
**B33 FIREPRO® Ablative Coated Batt Penetration Seal in Rigid Walls min. 150 mm thick**

B34.1 double Layer (50mm) FIREPRO® Ablative Coated Batt

Penetration Seal B34.1.1 Cable Penetrations

**Construction details:**

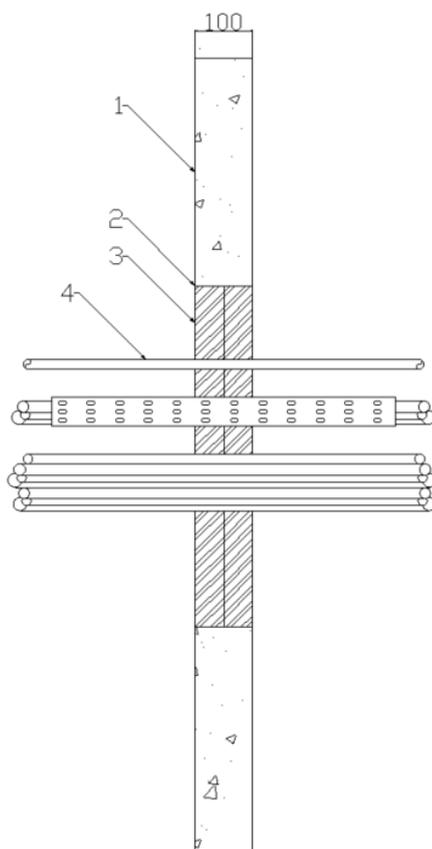
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 700mm wide x 1100mm high
- Cables and cable trays wrapped with Stone Wool Insulation 45mm thick, 40Kg/m<sup>3</sup> (L/I 200mm)
- First service support 400mm from both faces of the substrate



Service(s)	Classification
Electrical cables up to 21mm dia	<b>EI 120</b>
Electrical cables 22mm – 80mm dia	<b>E 120, EI 90</b>
Cable Trays and Ladders	<b>EI 120</b>
100 mm diameter bundle telecommunication cable type "F"	<b>EI 120</b>
Unsheathed electrical cables up to 24mm dia	<b>EI 120</b>

**Construction details:**

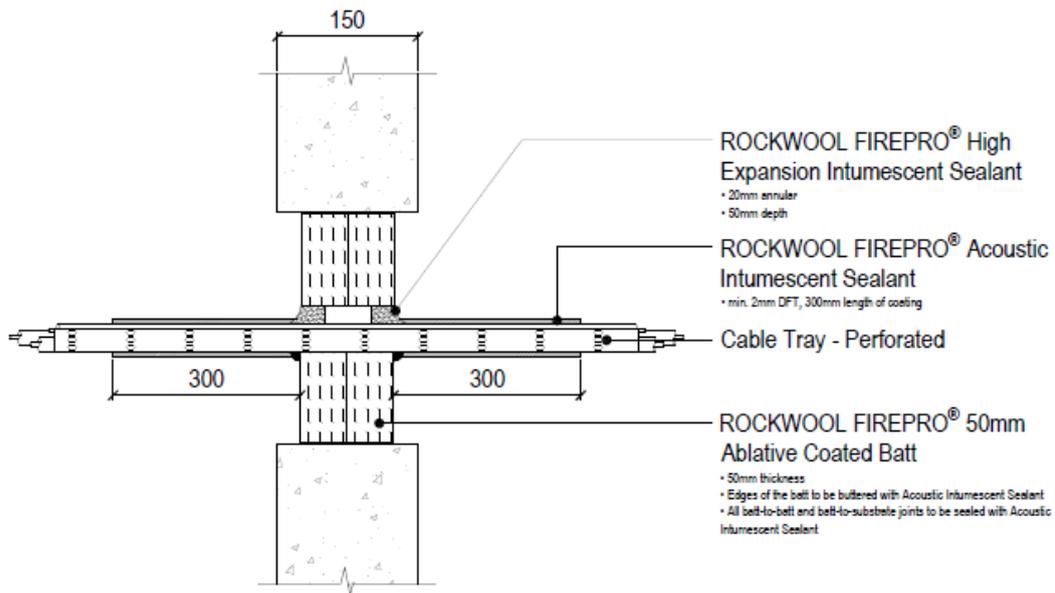
- Double layer of FIREPRO® Ablative Coated Batt (50mm) Electrical Cables and Conduits.
- Max. Aperture size 2600mm wide x 2600mm high
- FIREPRO® Acoustic Intumescent Sealant (2)
- FIREPRO® Batt (3)



Service(s)	Classification
Electrical cables up to 21mm dia	<b>EI 60</b>
Electrical cables 22mm – 50mm dia	<b>E 60</b> <b>EI 45</b>
Electrical cables 22mm – 80mm dia	<b>E 60</b> <b>EI 30</b>
Cable Trays and Ladders	<b>E 60</b> <b>EI 45</b>
100 mm diameter bundle telecommunication cable type "F"	<b>EI 60</b>
Unsheathed electrical cables up to 24mm dia	<b>EI 60</b>
Steel or Copper Conduits up to 16 mm	<b>E 60 C/U</b>
Plastic Conduits up to 16 mm	<b>E 60 C/U</b>

**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 750mm wide x 1200mm high
- Cables and cable trays wrapped with Stone Wool Insulation 45mm thick, 40Kg/m3 (L/I 200mm)
- FIREPRO® High Expansion Intumescent Sealant 20mm annular full 50mm depth of the FIREPRO® Ablative Coated Batt
- First service support 400mm from both faces of the substrate



Penetration Specification	Classification
500mm perforated cable tray	<b>EI 120</b>
Electrical cables up to 21mm ø	
1 off 'C1' Cable	
1 off 'C2' Cable	<b>E 120 EI 90</b>
1 off 'C3' Cable	<b>EI 120</b>

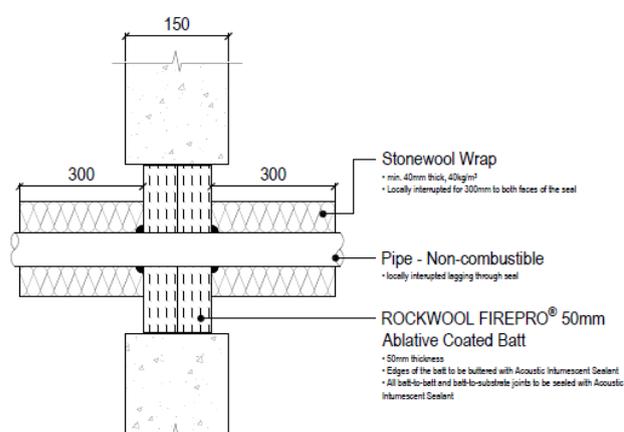
**B35 FIREPRO® Ablative Coated Batt Penetration Seal in Rigid Walls min. 150 mm thick**

B35.1 Double Layer (50mm) FIREPRO® Ablative Coated Batt

Penetration Seal B35.1.1 Metallic Pipe Penetrations

**Construction details:**

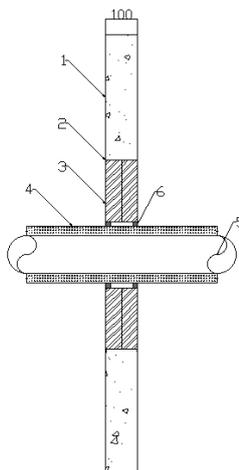
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 700mm wide x 1100mm high
- Cables and cable trays wrapped with 40mm stone wool insulation (min 40Kg/m<sup>3</sup>) (L/I 300mm)
- First service support 400mm from both faces of the substrate



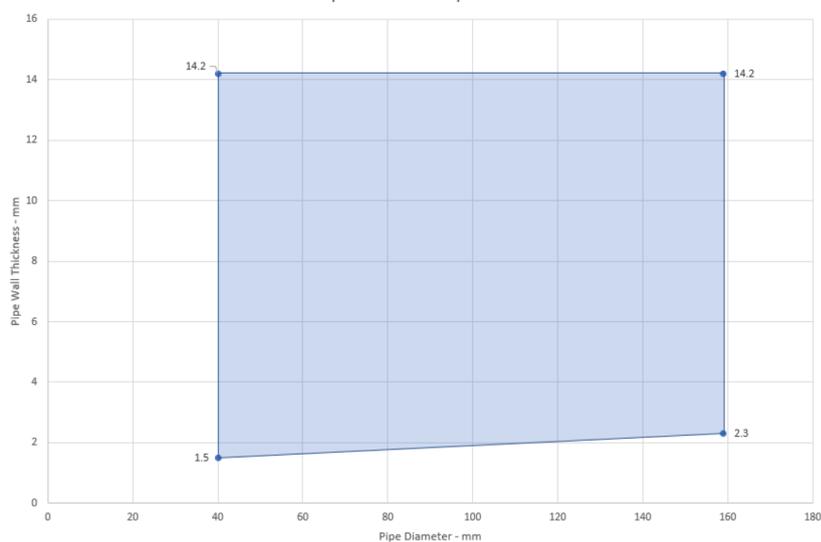
Service(s)	Classification
Steel or Copper Pipe 42mm Ø, 1.2mm – 14.2mm wall thickness. (L/I 300mm) 40mm stone wool insulation (min 40Kg/m <sup>3</sup> )	<b>E 120 C/U</b> <b>EI 60 C/U</b>
Steel or Copper Pipe 42mm – 159mm Ø, 2mm – 14.2mm wall thickness. (L/I 300mm) 40mm stone wool insulation (min 40Kg/m <sup>3</sup> )	<b>E 120 C/U</b> <b>EI 30 C/U</b>

**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) Insulated Metallic Pipes
- Max. Aperture size 730mm wide x 1200mm high
- Cables and cable trays wrapped with 40mm stone wool insulation (min 40Kg/m<sup>3</sup>) (L/I 300mm)
- 15mm deep x 15mm wide annulus FIREPRO® High Expansion Intumescent Sealant to both faces of the pipe



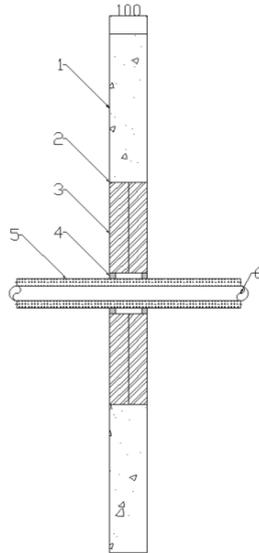
Permitted Pipe Diameter vs Pipe Wall Thickness



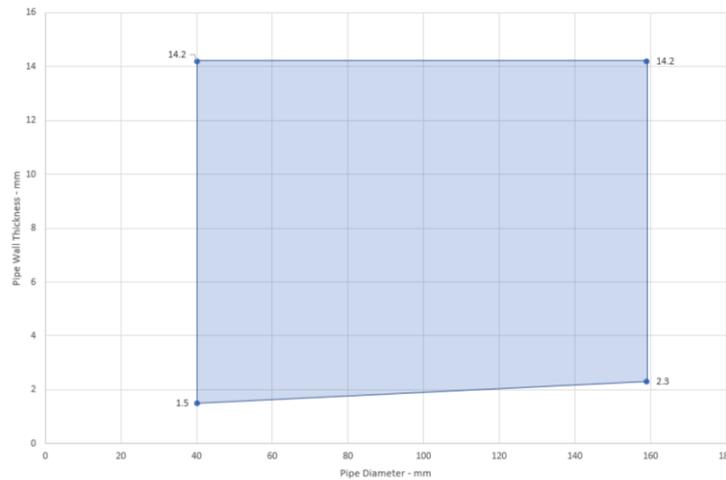
Service(s)	Classification
Single copper or mild steel pipe 40mm diameter and 1.5 – 14.2 mm wall with sustained/continuous 20mm thick foil faced glass wool insulation (min 80Kg/m <sup>3</sup> )	<b>E 90 U/C</b> <b>EI 60 U/C</b>
Single copper or mild steel pipe 40-159mm diameter and 1.5 – 14.2 mm wall (see graph above) with sustained/continuous 30mm thick foil faced glass wool insulation (min 80Kg/m <sup>3</sup> )	<b>EI 60 U/C</b>

**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) Insulated Metallic Pipes
- Max. Aperture size 2600mm wide x 2600mm high
- Cables and cable trays wrapped with 40mm stone wool insulation (min 40Kg/m<sup>3</sup>) (L/I 300mm)
- 15mm deep x 15mm wide annulus FIREPRO® High Expansion Intumescent Sealant to both faces of the pipe



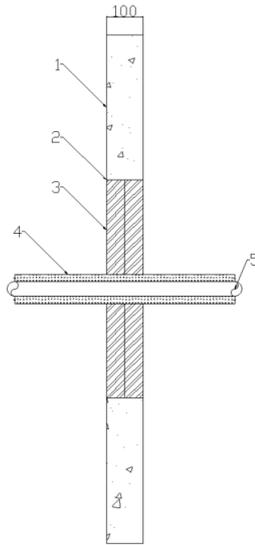
Permitted Pipe Diameter vs Pipe Wall Thickness



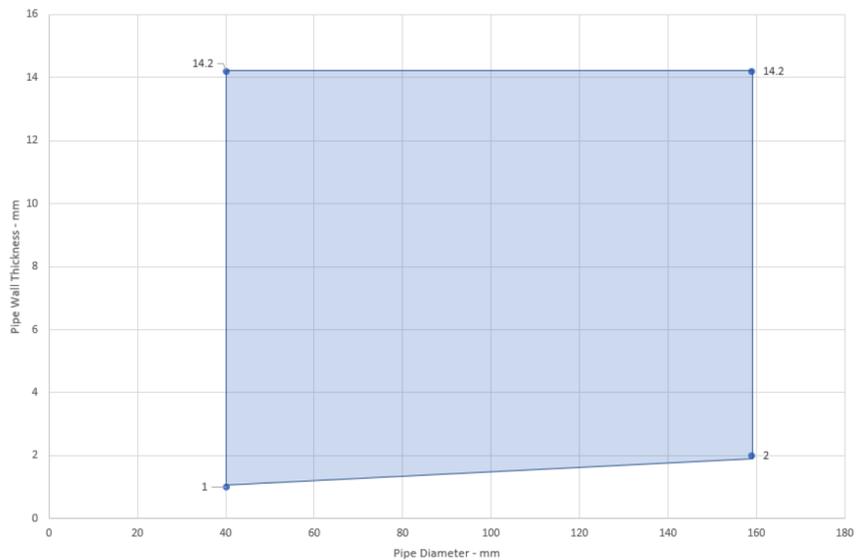
Service(s)	Classification
Single copper or mild steel pipe 40mm diameter and 1.5 – 14.2 mm wall with sustained/continuous 20mm thick foil faced glass wool insulation (min 80Kg/m <sup>3</sup> )	<b>E 90 U/C</b> <b>EI 60 U/C</b>
Single copper or mild steel pipe 40-159mm diameter and 1.5 – 14.2 mm wall (see graph above) with sustained/continuous 30mm thick foil faced glass wool insulation (min 80Kg/m <sup>3</sup> )	<b>EI 60 U/C</b>

**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) Insulated Metallic Pipes
- Max. Aperture size 730mm wide x 1200mm high



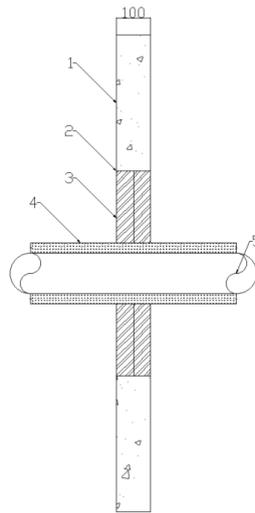
Permitted Pipe Diameter vs Pipe Wall Thickness



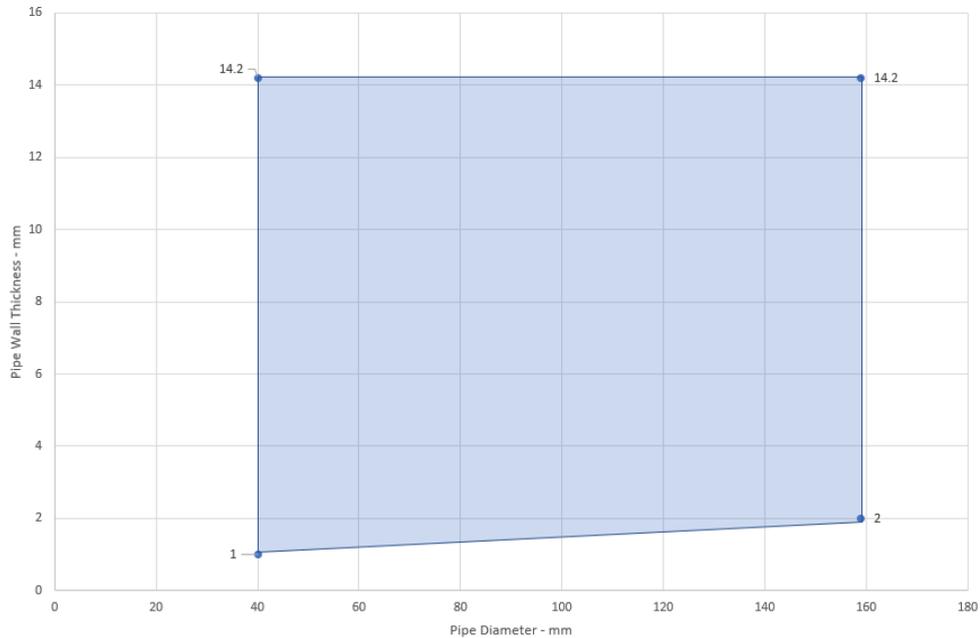
Service(s)	Classification
Steel or Copper Pipe 42-159mm Ø, 1.0mm – 14.2mm wall thickness (see graph above). 25mm thick foil faced glassfibre insulation min. 30kg/m <sup>3</sup> (C/S)	<b>E 120 C/U</b> <b>EI 45 C/U</b>
Steel or Copper Pipe 42mm Ø, 1mm – 14.2mm wall thickness. 25mm thick foil faced glassfibre insulation min. 30kg/m <sup>3</sup> (C/S)	<b>E 120 C/U</b> <b>EI 60 C/U</b>

**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) Insulated Metallic Pipes
- Max. Aperture size 2600mm wide x 2600mm high



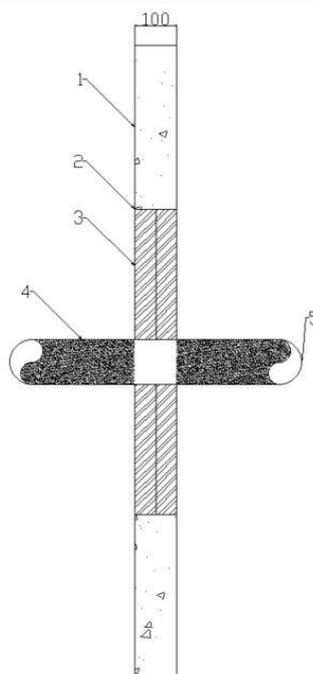
Permitted Pipe Diameter vs Pipe Wall Thickness



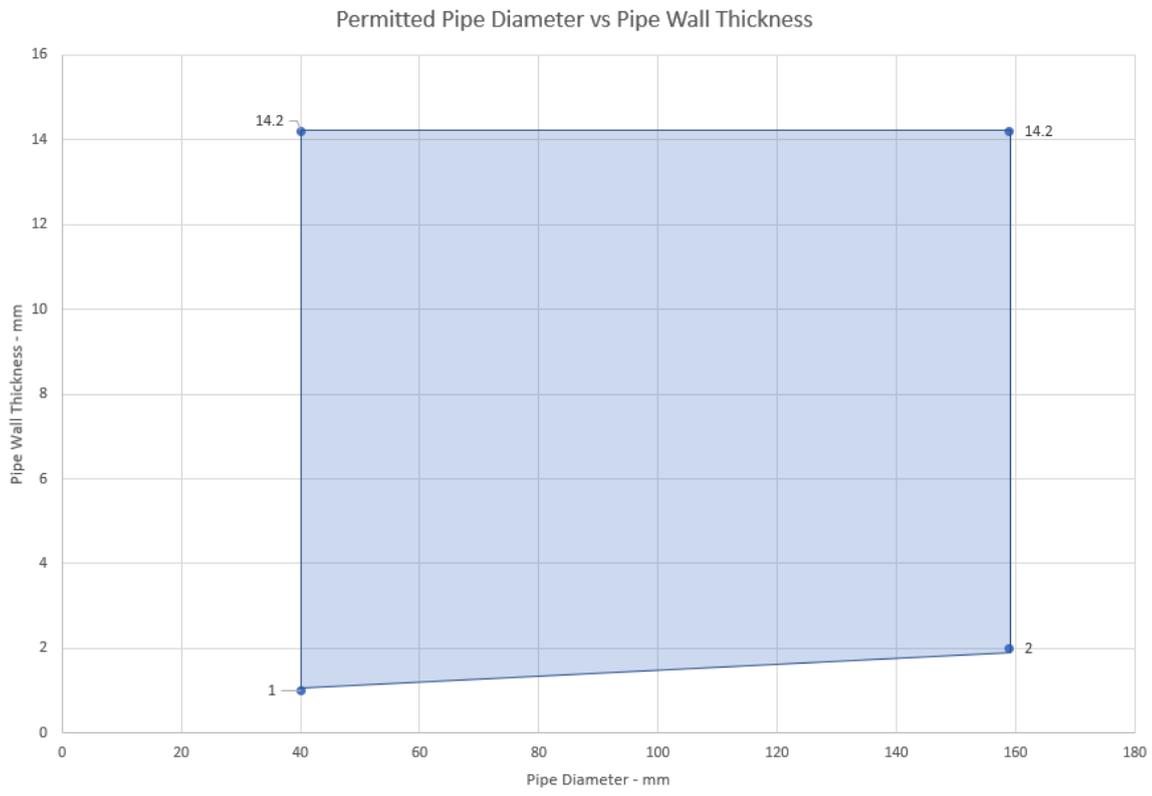
Service(s)	Classification
Steel or Copper Pipe 42-159mm Ø, 1.0mm – 14.2mm wall thickness (see graph above). 25mm thick foil faced glassfibre insulation min. 30kg/m <sup>3</sup> (C/S)	<b>E 60 C/U</b> <b>EI 45 C/U</b>
Steel or Copper Pipe 42mm Ø, 1mm – 14.2mm wall thickness. 25mm thick foil faced glassfibre insulation min. 30kg/m <sup>3</sup> (C/S)	<b>E 60 C/U</b> <b>EI 60 C/U</b>

**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) Insulated Metallic Pipes
- Max. Aperture size 730mm wide x 1200mm high
- Penetrations positioned as per option 1 or 2 below, 0 mm distance between services and 50 mm to edge of seal.

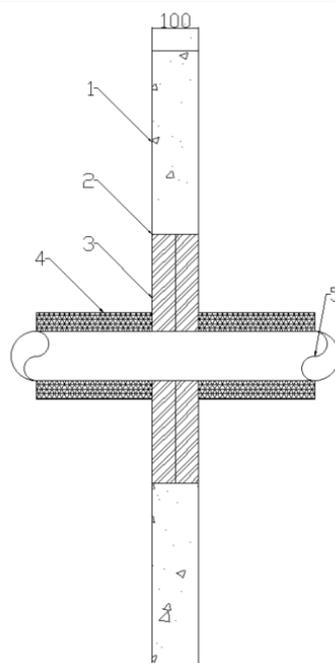


Service(s)	Classification
Steel or Copper Pipe 108mm Ø, 1.5mm – 14.2mm wall thickness, 50mm thick foil faced stone wool insulation min. 100kg/m <sup>3</sup> (L/I 500mm)	<b>E 120 C/U</b> <b>EI 45 C/U</b>
Steel or Copper Pipe 108mm Ø, 1.5mm – 14.2mm wall thickness, 50mm thick foil faced stone wool insulation min. 100kg/m <sup>3</sup> (C/I)	<b>E 120 C/U</b> <b>EI 60 C/U</b>
Steel or Copper Pipe 42-159mm Ø, 1.0mm – 14.2mm wall thickness (see graph below), 40mm thick foil faced stonewool insulation min. 40kg/m <sup>3</sup> (L/I 400mm)	<b>EI 45 C/U</b>
Steel 42-324mm Ø, 16mm wall thickness. 40mm thick foil faced stonewool insulation min. 40kg/m <sup>3</sup> (L/I 400mm)	<b>EI 45 C/U</b>
Steel or Copper Pipe 42mm Ø, 1.0mm – 14.2mm wall thickness , PST coating along the penetration 2mm DFT (L/I 300mm)	<b>E 120 C/U</b> <b>EI 45 C/U</b>
Steel or Copper Pipe 42-159mm Ø, 1.0mm – 14.2mm wall thickness (see graph below), PST coating along the penetration 2mm DFT (L/I 300mm)	<b>E 120 C/U</b> <b>EI 20 C/U</b>
Steel 42-324mm Ø, 16mm wall thickness. 14.2mm wall thickness PST coating along the penetration 2mm DFT (L/I 300mm)	<b>E 120 C/U</b> <b>EI 45 C/U</b>



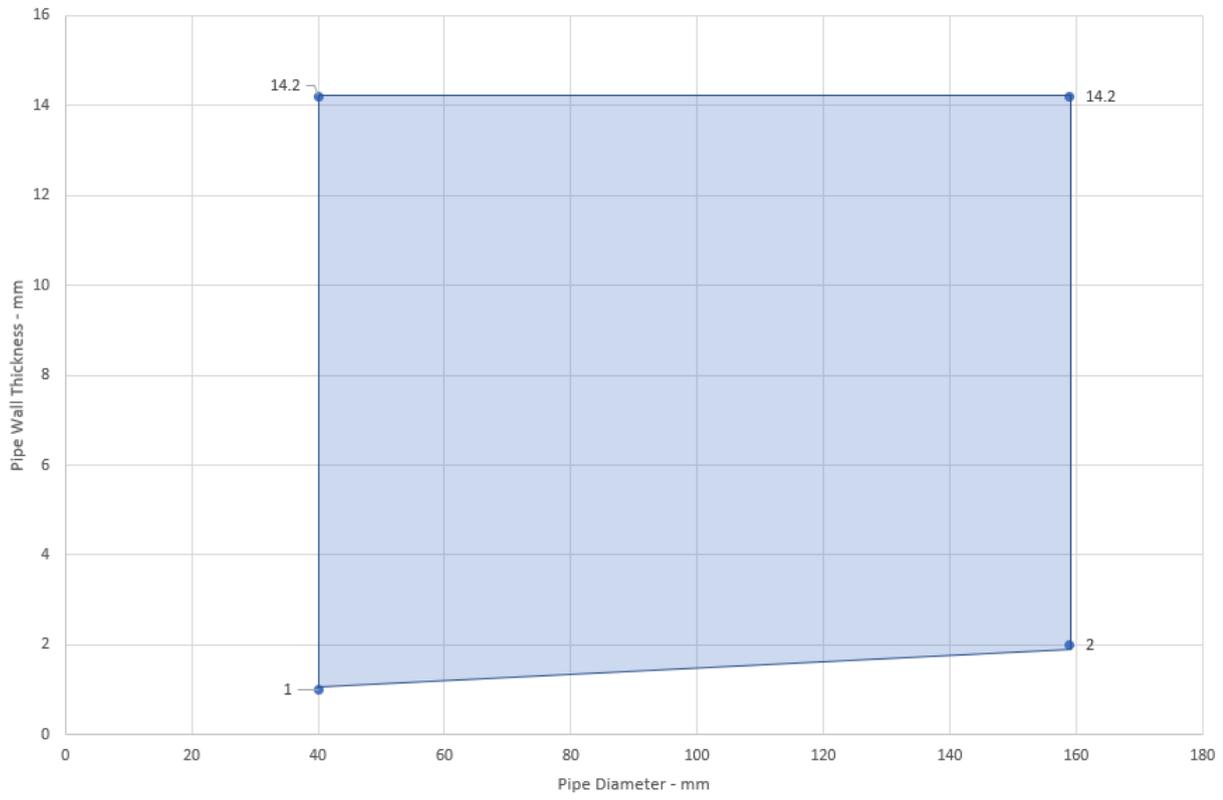
**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) Insulated Metallic Pipes
- Max. Aperture size 730mm wide x 1200mm high
- Penetrations positioned as per option 1 or 2 below, 0 mm distance between services and 50 mm to edge of seal.



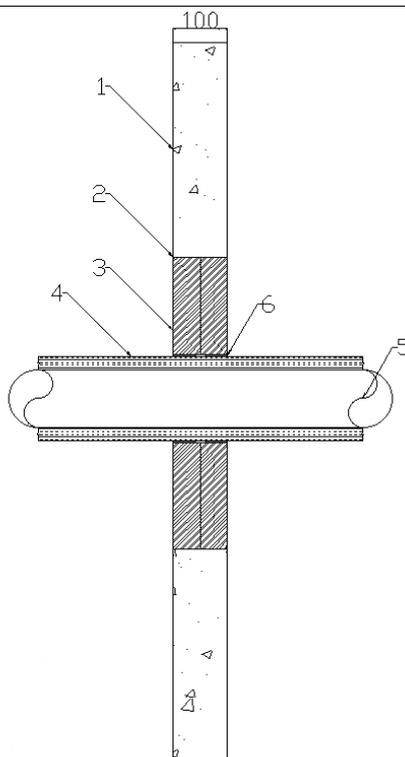
Service(s)	Classification
Steel or Copper Pipe 108mm Ø, 1.5mm – 14.2mm wall thickness, 50mm thick foil faced stone wool insulation min. 100kg/m <sup>3</sup> (L/I 500mm)	<b>E 60 C/U</b> <b>EI 45 C/U</b>
Steel or Copper Pipe 108mm Ø, 1.5mm – 14.2mm wall thickness, 50mm thick foil faced stone wool insulation min. 100kg/m <sup>3</sup> (C/I)	<b>EI 60 C/U</b>
Steel or Copper Pipe 42-159mm Ø, 1.0mm – 14.2mm wall thickness (see graph below), 40mm thick foil faced stonewool insulation min. 40kg/m <sup>3</sup> (L/I 400mm)	<b>EI 45 C/U</b>
Steel 42-324mm Ø, 16mm wall thickness. 40mm thick foil faced stonewool insulation min. 40kg/m <sup>3</sup> (L/I 400mm)	<b>EI 45 C/U</b>
Steel or Copper Pipe 42mm Ø, 1.0mm – 14.2mm wall thickness , PST coating along the penetration 2mm DFT (L/I 300mm)	<b>E 60 C/U</b> <b>EI 45 C/U</b>
Steel or Copper Pipe 42-159mm Ø, 1.0mm – 14.2mm wall thickness (see graph below), PST coating along the penetration 2mm DFT (L/I 300mm)	<b>E 60 C/U</b> <b>EI 20 C/U</b>
Steel 42-324mm Ø, 16mm wall thickness. 14.2mm wall thickness PST coating along the penetration 2mm DFT (L/I 300mm)	<b>E 160 C/U</b> <b>EI 45 C/U</b>

Permitted Pipe Diameter vs Pipe Wall Thickness



**Construction details:**

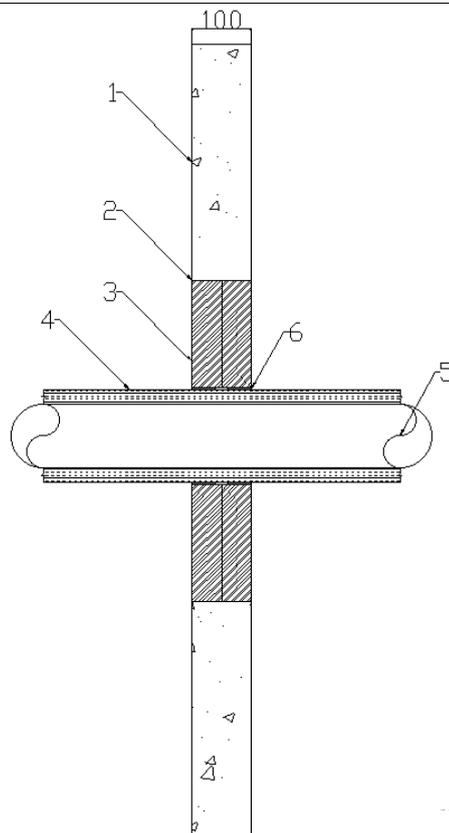
- Double layer of FIREPRO® Ablative Coated Batt (50mm) Insulated Metallic Pipes
- Max. Aperture size 750mm wide x 1200mm high
- 2x2 mm thick layers of FIREPRO® Intumescent Pipe Wrap Roll/FIREPRO® Intumescent Pipe Wrap CE installed on both sides of the FIREPRO® Ablative Coated Batt
- Equivalent elastomeric pipe insulation classified BL-s2,d0 or better to EN 13501-1
- Equivalent Phenolic foam pipe insulation classified BL-S1, d0 or better to EN 13501-1



Service(s)	Classification
Steel or Copper Pipe 42-159mm Ø, 1.2mm – 14.2mm wall thickness. 13-25mm thick K Flex ST Insulation (C/S)	<b>E 120 C/U</b> <b>EI 60 C/U</b>
Steel or Copper Pipe 42mm Ø, 1 – 14.2mm wall thickness. 25-13mm thick K Flex ST insulation (C/S)	<b>E 120 C/U</b> <b>EI 90 C/U</b>
Steel or Copper Pipe 42-108mm Ø, 1.2 – 14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM insulation (C/S)	<b>E 120 C/U</b> <b>EI 60 C/U</b>
Steel or Copper Pipe 42mm Ø, 1–14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM insulation3 (C/S)	<b>E 120 C/U</b> <b>EI 90 C/U</b>
Steel or Copper Pipe 42mm Ø, 1.0–14.2mm wall thickness. 50mm thick glassfibre insulation (C/S)	<b>E 120 C/U</b> <b>EI 90 C/U</b>
Steel or Copper Pipe 42-159mm Ø, 1.2mm – 14.2mm wall thickness. 13-25mm thick K Flex ST Insulation (C/S)	<b>E 120 C/U</b> <b>EI 60 C/U</b>

**Construction details:**

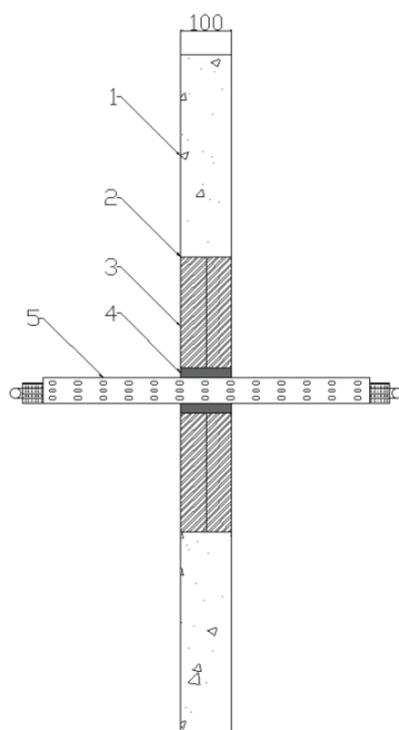
- Double layer of FIREPRO® Ablative Coated Batt (50mm) Insulated Metallic Pipes
- Max. Aperture size 2600mm wide x 2600mm high
- 2x2 mm thick layers of FIREPRO® Intumescent Pipe Wrap Roll/FIREPRO® Intumescent Pipe Wrap CE installed on both sides of the FIREPRO® Ablative Coated Batt
- Equivalent elastomeric pipe insulation classified BL-s2,d0 or better to EN 13501-1
- Equivalent Phenolic foam pipe insulation classified BL-S1, d0 or better to EN 13501-1



Service(s)	Classification
Steel or Copper Pipe 42-159mm Ø, 1.2mm – 14.2mm wall thickness. 13-25mm thick K Flex ST Insulation (C/S)	<b>EI 60 C/U</b>
Steel or Copper Pipe 42mm Ø, 1 – 14.2mm wall thickness. 25-13mm thick K Flex ST insulation (C/S)	<b>EI 60 C/U</b>
Steel or Copper Pipe 42-108mm Ø, 1.2 – 14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM insulation (C/S)	<b>EI 60 C/U</b>
Steel or Copper Pipe 42mm Ø, 1–14.2mm wall thickness. 25 -40mm thick Kingspan ooltherm FM insulation (C/S)	<b>EI 60 C/U</b>
Steel or Copper Pipe 42mm Ø, 1.02–14.2mm wall thickness. 50mm thick glassfibre insulation (C/S)	<b>EI 60 C/U</b>
Steel or Copper Pipe 42-159mm Ø, 1.2mm – 14.2mm wall thickness. 13-25mm thick K Flex ST Insulation (C/S)	<b>EI 60 C/U</b>

**Construction details:**

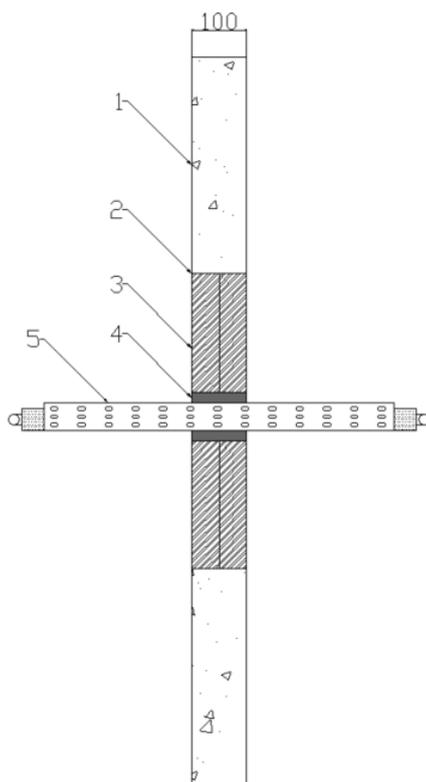
- Double layer of FIREPRO® Ablative Coated Batt (50mm) Insulated Metallic Pipes
- Max. Aperture size 730mm wide x 1200mm high
- FIREPRO® High Expansion Intumescent Sealant 20 mm annulus full 50mm depth of the FIREPRO® Ablative Coated Batt
- Equivalent elastomeric pipe insulation classified BL-s2,d0 or better to EN 13501-1



Service(s)	Classification
6 off Steel or Copper Pipe 22mm Ø, 0.9mm – 14.2mm wall thickness. 19mm thick Armaflex (L/S 400mm)	<b>EI 90 C/U</b>
Steel cable tray	<b>E 90 EI 15</b>

**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) Insulated Metallic Pipes
- Max. Aperture size 2600mm wide x 2600mm high
- FIREPRO® High Expansion Intumescent Sealant 20 mm annulus full 50mm depth of the FIREPRO® Ablative Coated Batt
- Equivalent elastomeric pipe insulation classified B<sub>L</sub>-s2,d0 or better to EN 13501-1



Service(s)	Classification
6 off Steel or Copper Pipe 22mm Ø, 0.9mm – 14.2mm wall thickness. 19mm thick Armaflex (L/S 400mm)	<b>EI 60 C/U</b>
1500mm steel cable tray	<b>E 60 EI 15</b>

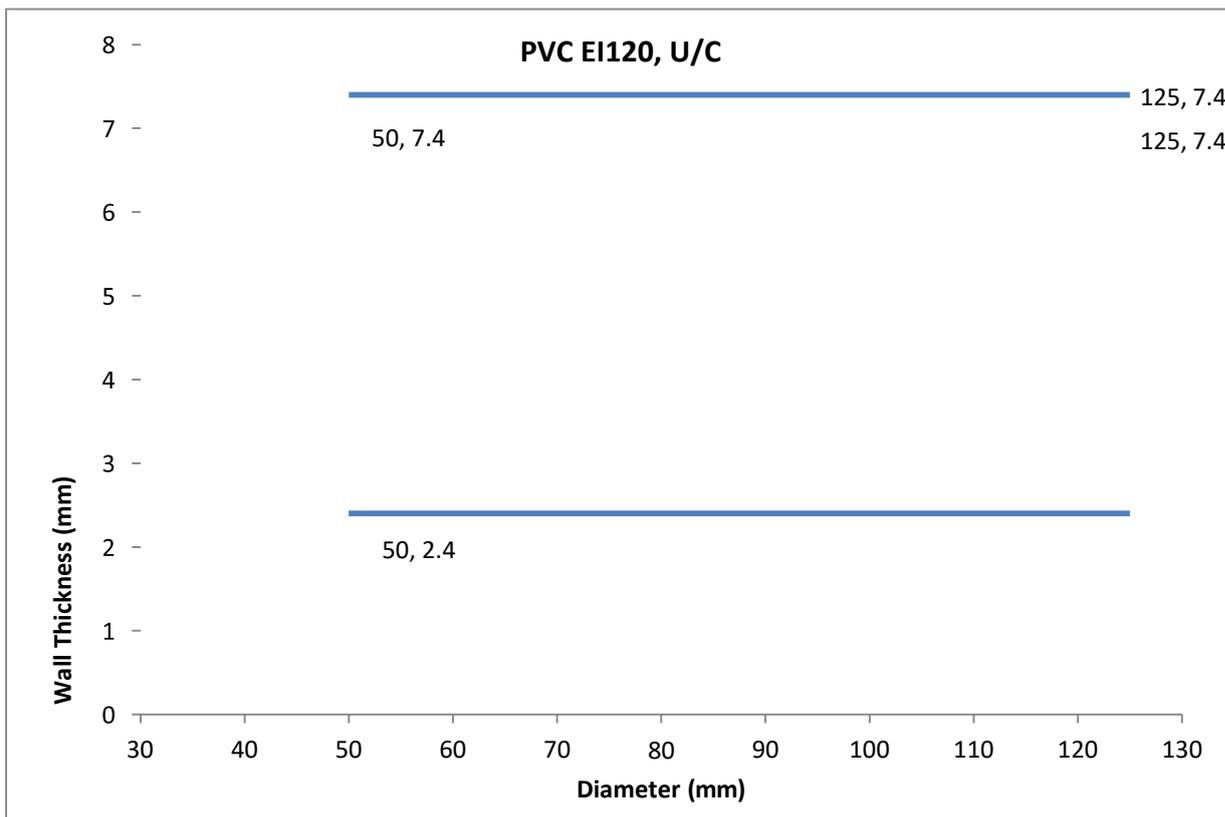
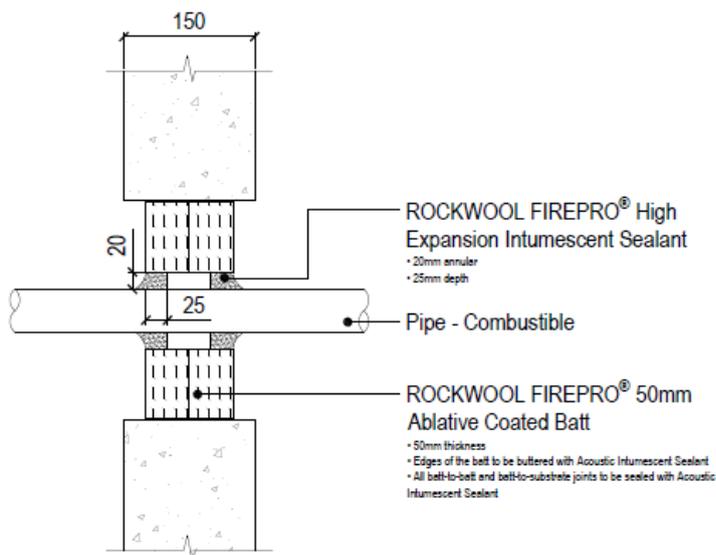
**B36 FIREPRO® Ablative Coated Batt Penetration Seal in Rigid Walls min. 150 mm thick**

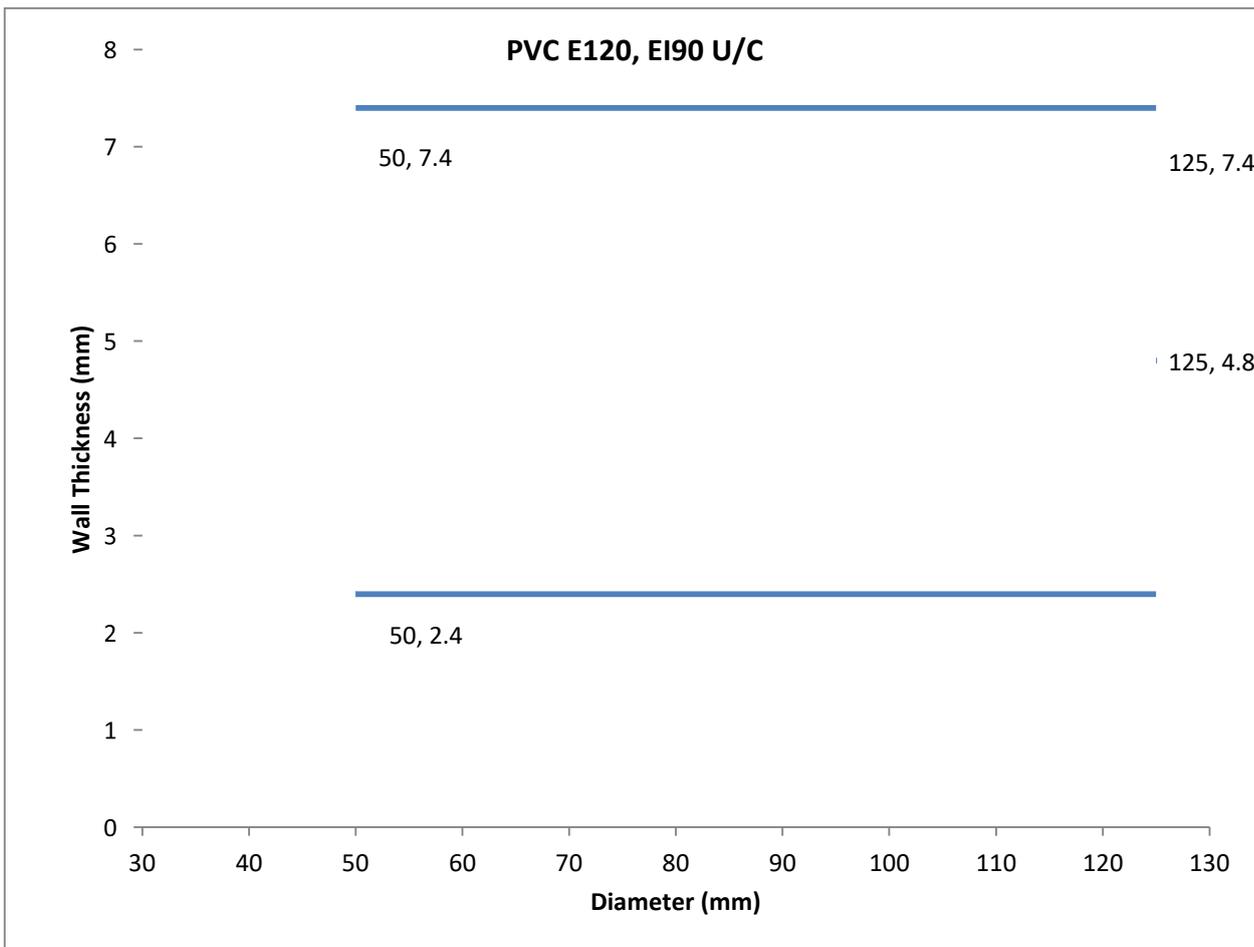
B36.1 double Layer (50mm) FIREPRO® Ablative Coated Batt

Penetration Seal B36.1.1 Plastic Pipe Penetrations

**Construction details:**

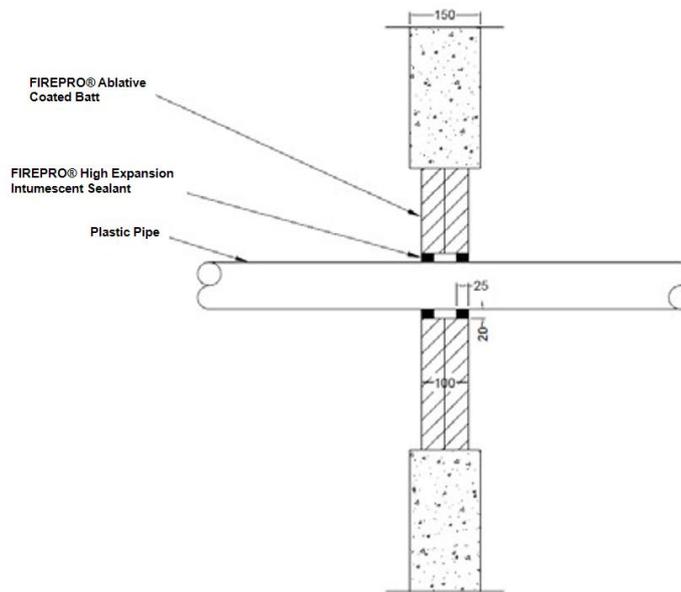
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 750mm wide x 1100mm high
- FIREPRO® High Expansion Intumescent Sealant 20mm annulus, 25mm deep both faces of the FIREPRO® Ablative Coated Batt
- First service support 400mm from both faces of the substrate





**Construction details:**

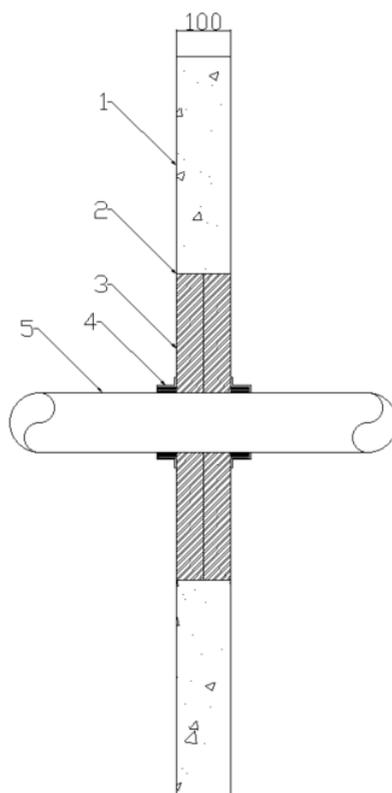
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 750mm wide x 1100mm high
- FIREPRO® High Expansion Intumescent Sealant 20mm annulus, 25mm deep both faces of the FIREPRO® Ablative Coated Batt
- First service support 400mm from both faces of the substrate



Penetration Specification	Classification
Uponor MLC (Multi-Layer Composite) Pipe 40mm ø 4mm wall thickness	<b>EI 120 U/C</b>
Uponor MLC (Multi-Layer Composite) Pipe 50mm ø 4.5mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 63mm ø 6mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 75mm ø 7.5mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 90mm ø 8.5mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 110mm ø 10mm wall thickness	

**Construction details:**

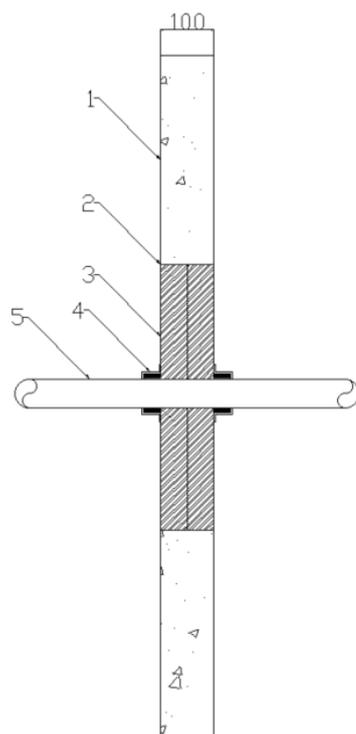
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 730mm wide x 1200mm high
- Penetration positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal.
- Collars secured both faces of the substrate utilizing 80mm long steel pig tail screw through to FIREPRO® Ablative Coated Batt



Service(s)	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 1.8mm wall thickness	32mm	<b>EI 120 U/C</b>
PVC Pipe 40mm Ø, 1.8mm wall thickness	40mm	
PVC Pipe 50mm Ø, 1.8mm wall thickness	50mm	
PVC Pipe 55mm Ø, 1.8-2.3mm wall thickness	55mm	
PVC Pipe 63mm Ø, 2.3-3mm wall thickness	63mm	
PVC Pipe 75mm Ø, 3.1-4.8mm wall thickness	75mm	
PVC Pipe 82mm Ø, 3.1-4.8mm wall thickness	82mm	
PVC Pipe 90mm Ø, 4.2-7.4mm wall thickness	90mm	
PVC Pipe 100mm Ø, 4.2-7.2mm wall thickness	100mm	
PVC Pipe 110mm Ø, 4.2-7.4mm wall thickness	110mm	
PVC Pipe 125mm Ø, 6mm wall thickness	125mm	
PVC Pipe 140mm Ø, 6.1-7.5mm wall thickness	140mm	

**Construction details:**

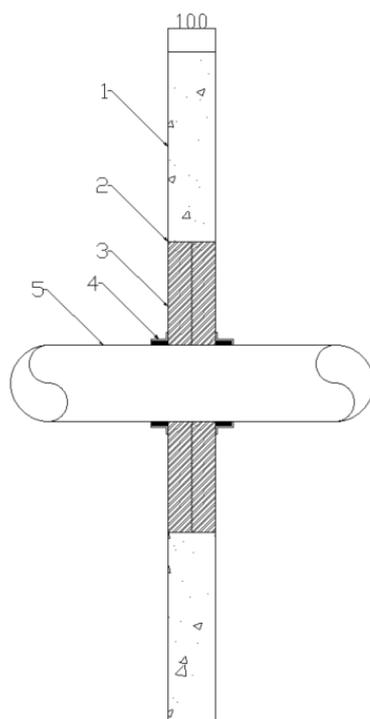
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 2600mm wide x 2600mm high
- Penetration positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal.
- Collars secured both faces of the substrate utilizing 80mm long steel pig tail screw through to FIREPRO® Ablative Coated Batt



Service(s)	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 1.8mm wall thickness	32mm	<b>EI 60 U/C</b>
PVC Pipe 40mm Ø, 1.8mm wall thickness	40mm	
PVC Pipe 50mm Ø, 1.8mm wall thickness	50mm	
PVC Pipe 55mm Ø, 1.8-2.3mm wall thickness	55mm	
PVC Pipe 63mm Ø, 2.3-3mm wall thickness	63mm	
PVC Pipe 75mm Ø, 3.1-4.8mm wall thickness	75mm	
PVC Pipe 82mm Ø, 3.1-4.8mm wall thickness	82mm	
PVC Pipe 90mm Ø, 4.2-7.4mm wall thickness	90mm	
PVC Pipe 100mm Ø, 4.2-7.2mm wall thickness	100mm	
PVC Pipe 110mm Ø, 4.2-7.4mm wall thickness	110mm	
PVC Pipe 125mm Ø, 6mm wall thickness	125mm	
PVC Pipe 140mm Ø, 6.1-7.5mm wall thickness	140mm	
PVC Pipe 160mm Ø, 6.2-9.5mm wall thickness	160 mm	

**Construction details:**

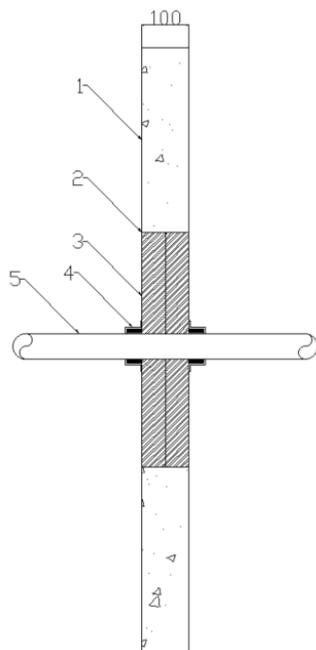
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 730mm wide x 1200mm high
- Penetration positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal.
- Collars secured both faces of the substrate utilizing 80mm long steel pig tail screw through to FIREPRO® Ablative Coated Batt



Service(s)	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 2.9mm wall thickness	32mm	<b>EI 120 U/C</b>
PVC Pipe 40mm Ø, 2.9mm wall thickness	40mm	
PVC Pipe 50mm Ø, 2.9mm wall thickness	50mm	
PVC Pipe 55mm Ø, 2.9-4.4mm wall thickness	55mm	
PVC Pipe 63mm Ø, 2.9-4.4mm wall thickness	63mm	
PVC Pipe 75mm Ø, 2.8-6.7mm wall thickness	75mm	
PVC Pipe 82mm Ø, 2.8-6.7mm wall thickness	82mm	
PVC Pipe 90mm Ø, 2.7-10mm wall thickness	90mm	
PVC Pipe 100mm Ø, 2.7-10mm wall thickness	100mm	
PVC Pipe 110mm Ø, 2.7-10mm wall thickness	110mm	
PVC Pipe 125mm Ø, 3.1mm wall thickness	125mm	
PVC Pipe 140mm Ø, 3.5-8mm wall thickness	140mm	
PVC Pipe 160mm Ø, 4-14.6mm wall thickness	160 mm	

**Construction details:**

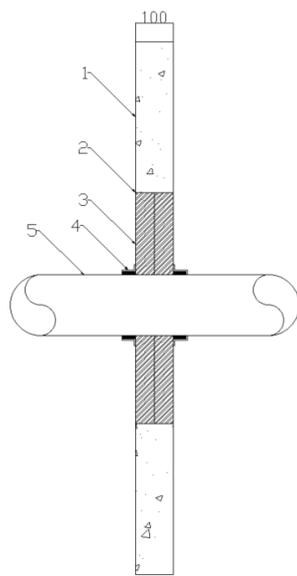
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 2600mm wide x 2600mm high
- Penetration positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal.
- Collars secured both faces of the substrate utilizing 80mm long steel pig tail screw through to FIREPRO® Ablative Coated Batt



Service(s)	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 2.9mm wall thickness	32mm	<b>EI 60U/C</b>
PVC Pipe 40mm Ø, 2.9mm wall thickness	40mm	
PVC Pipe 50mm Ø, 2.9mm wall thickness	50mm	
PVC Pipe 55mm Ø, 2.9-4.4mm wall thickness	55mm	
PVC Pipe 63mm Ø, 2.9-4.4mm wall thickness	63mm	
PVC Pipe 75mm Ø, 2.8-6.7mm wall thickness	75mm	
PVC Pipe 82mm Ø, 2.8-6.7mm wall thickness	82mm	
PVC Pipe 90mm Ø, 2.7-10mm wall thickness	90mm	
PVC Pipe 100mm Ø, 2.7-10mm wall thickness	100mm	
PVC Pipe 110mm Ø, 2.7-10mm wall thickness	110mm	
PVC Pipe 125mm Ø, 3.1mm wall thickness	125mm	
PVC Pipe 140mm Ø, 3.5-8mm wall thickness	140mm	
PVC Pipe 160mm Ø, 4-14.6mm wall thickness	160 mm	

**Construction details:**

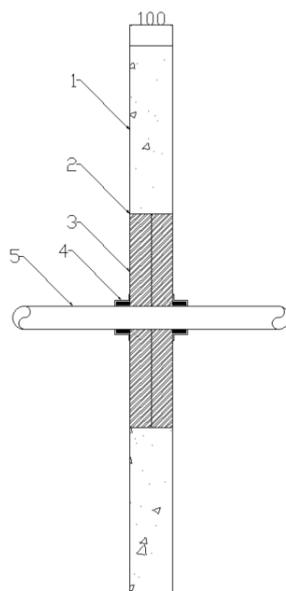
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 730mm wide x 1200mm high
- Penetration positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal.
- Collars secured both faces of the substrate utilizing 80mm long steel pig tail screw through to FIREPRO® Ablative Coated Batt



Service(s)	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 2.9mm wall thickness	32mm	<b>EI 120U/C</b>
PVC Pipe 40mm Ø, 2.9mm wall thickness	40mm	
PVC Pipe 50mm Ø, 2.9mm wall thickness	50mm	
PVC Pipe 55mm Ø, 2.9-4.4mm wall thickness	55mm	
PVC Pipe 63mm Ø, 2.9-4.4mm wall thickness	63mm	
PVC Pipe 75mm Ø, 2.8-6.7mm wall thickness	75mm	
PVC Pipe 82mm Ø, 2.8-6.7mm wall thickness	82mm	
PVC Pipe 90mm Ø, 2.7-10mm wall thickness	90mm	
PVC Pipe 100mm Ø, 2.7-10mm wall thickness	100mm	
PVC Pipe 110mm Ø, 2.7-10mm wall thickness	110mm	
PVC Pipe 125mm Ø, 3.1mm wall thickness	125mm	
PVC Pipe 140mm Ø, 3.5-8mm wall thickness	140mm	
PVC Pipe 160mm Ø, 4-9.5mm wall thickness	160 mm	

**Construction details:**

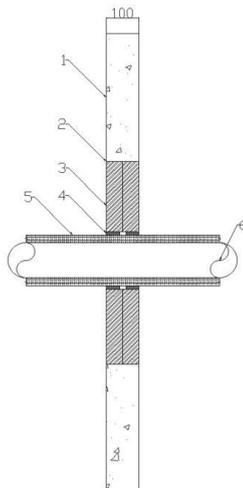
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 2600mm wide x 2600mm high
- Penetration positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal.
- Collars secured both faces of the substrate utilizing 80mm long steel pig tail screw through to FIREPRO® Ablative Coated Batt



Service(s)	FIREPRO® Pipe Collar CE Ref	Classification
PVC Pipe 32mm Ø, 2.9mm wall thickness	32mm	<b>EI 60U/C</b>
PVC Pipe 40mm Ø, 2.9mm wall thickness	40mm	
PVC Pipe 50mm Ø, 2.9mm wall thickness	50mm	
PVC Pipe 55mm Ø, 2.9-4.4mm wall thickness	55mm	
PVC Pipe 63mm Ø, 2.9-4.4mm wall thickness	63mm	
PVC Pipe 75mm Ø, 2.8-6.7mm wall thickness	75mm	
PVC Pipe 82mm Ø, 2.8-6.7mm wall thickness	82mm	
PVC Pipe 90mm Ø, 2.7-10mm wall thickness	90mm	
PVC Pipe 100mm Ø, 2.7-10mm wall thickness	100mm	
PVC Pipe 110mm Ø, 2.7-10mm wall thickness	110mm	
PVC Pipe 125mm Ø, 3.1mm wall thickness	125mm	
PVC Pipe 140mm Ø, 3.9-5.8mm wall thickness	140mm	
PVC Pipe 160mm Ø, 4.9-9.5mm wall thickness	160 mm	

**Construction details:**

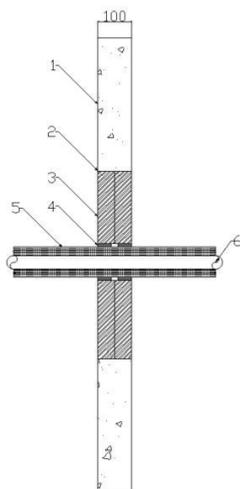
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 730mm wide x 1200mm high
- Penetration positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal.
- FIREPRO® Intumescent Pipe Wrap Roll/FIREPRO® Intumescent Pipe Wrap CE secured internally within both faces of the FIREPRO® Ablative Coated Batt
- equivalent elastomeric pipe insulation classified B<sub>L</sub> – s2, d0 or better to EN 13501-1
- equivalent Phenolic foam pipe insulation classified B<sub>L</sub> – s1, d0 or better to EN 13501-1



Service(s)	FIREPRO® Intumescent Pipe Wrap Roll/FIREPRO® Intumescent Pipe Wrap CE Ref	Classification
PVC Pipe 40mm Ø, 1.9mm wall thickness. 25 mm thick Kingspan Kooltherm FM3 insulation (C/S)	3x2mm thickness	<b>E 120 U/C</b> <b>EI 90 U/C</b>
PVC Pipe 40mm Ø, 3mm wall thickness. 15 mm thick Kingspan Kooltherm FM3 insulation (C/S)	3x2mm thickness	
PVC Pipe 110mm Ø, 4.2mm wall thickness. 25 mm thick Kingspan Kooltherm FM3 insulation (C/S)	5x2mm thickness	<b>EI 120 U/C</b>
PVC Pipe 110mm Ø, 6.6mm wall thickness. 20 mm thick Kingspan Kooltherm FM3 insulation (C/S)	5x2mm thickness	<b>E 120 U/C</b> <b>EI 90 U/C</b>
PVC Pipe 40mm Ø, 1.9mm wall thickness. 32 mm thick Armacell Armaflex Class O2 (C/S)	5x2mm thickness	<b>E 120 U/C</b> <b>EI 90 U/C</b>
PVC Pipe 40mm Ø, 3mm wall thickness. 9 mm thick Armacell Armaflex Class O2 (C/S)	5x2mm thickness	
PVC Pipe 110mm Ø, 4.2mm wall thickness. 32 mm thick Armacell Armaflex Class O2 (C/S)	5x2mm thickness	<b>EI 120 U/C</b>
PVC Pipe 110mm Ø, 6.6mm wall thickness. 13 mm thick Armacell Armaflex Class O2 (C/S)	5x2mm thickness	<b>E 120 U/C</b> <b>EI 90 U/C</b>

**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the wall.
- Max. Aperture size 2600mm wide x 2600mm high
- Penetration positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal.
- FIREPRO® Intumescent Pipe Wrap Roll/FIREPRO® Intumescent Pipe Wrap CE secured internally within both faces of the FIREPRO® Ablative Coated Batt
- equivalent elastomeric pipe insulation classified B<sub>L</sub> – s2, d0 or better to EN 13501-1
- equivalent Phenolic foam pipe insulation classified B<sub>L</sub> – s1, d0 or better to EN 13501-1

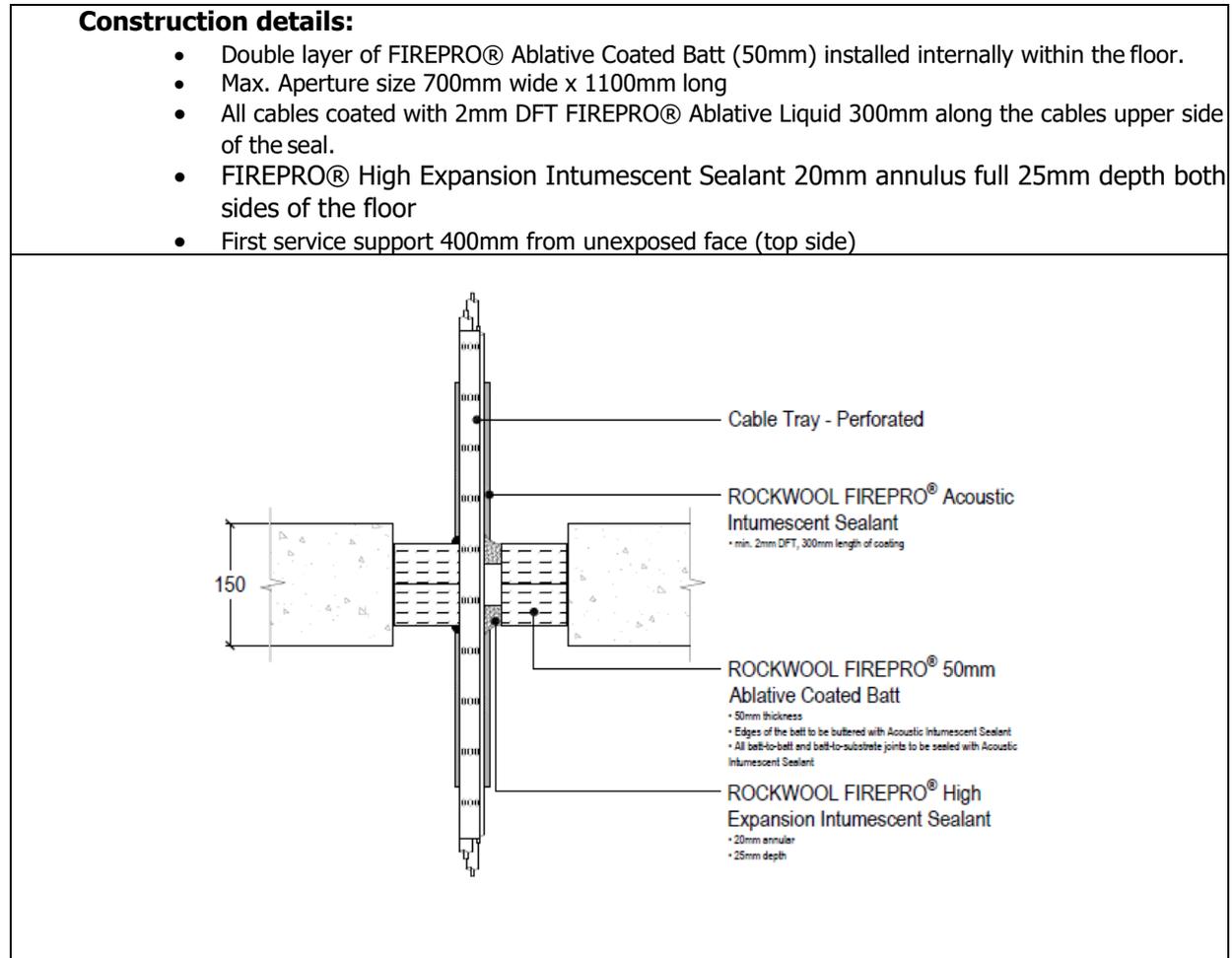


Service(s)	FIREPRO® Intumescent Pipe Wrap Roll/FIREPRO® Intumescent Pipe Wrap CE Ref	Classification
PVC Pipe 40mm Ø, 1.9mm wall thickness. 25 mm thick Kingspan Kooltherm FM3 insulation (C/S)	3x2mm thickness	<b>EI 60 U/C</b>
PVC Pipe 40mm Ø, 3mm wall thickness. 15 mm thick Kingspan Kooltherm FM3 insulation (C/S)	3x2mm thickness	
PVC Pipe 110mm Ø, 4.2mm wall thickness. 25 mm thick Kingspan Kooltherm FM3 insulation (C/S)	5x2mm thickness	
PVC Pipe 110mm Ø, 6.6mm wall thickness. 20 mm thick Kingspan Kooltherm FM3 insulation (C/S)	5x2mm thickness	
PVC Pipe 40mm Ø, 1.9mm wall thickness. 32 mm thick Armacell Armaflex Class O2 (C/S)	3x2mm thickness	
PVC Pipe 40mm Ø, 3mm wall thickness. 9 mm thick Armacell Armaflex Class O2 (C/S)	3x2mm thickness	
PVC Pipe 110mm Ø, 4.2mm wall thickness. 32 mm thick Armacell Armaflex Class O2 (C/S)	5x2mm thickness	
PVC Pipe 110mm Ø, 6.6mm wall thickness. 13 mm thick Armacell Armaflex Class O2 (C/S)	5x2mm thickness	

## B37 FIREPRO® Ablative Coated Batt Penetration Seal in Rigid Floors min. 150 mm thick

B37.1 Double Layer (50mm) FIREPRO® Ablative Coated Batt

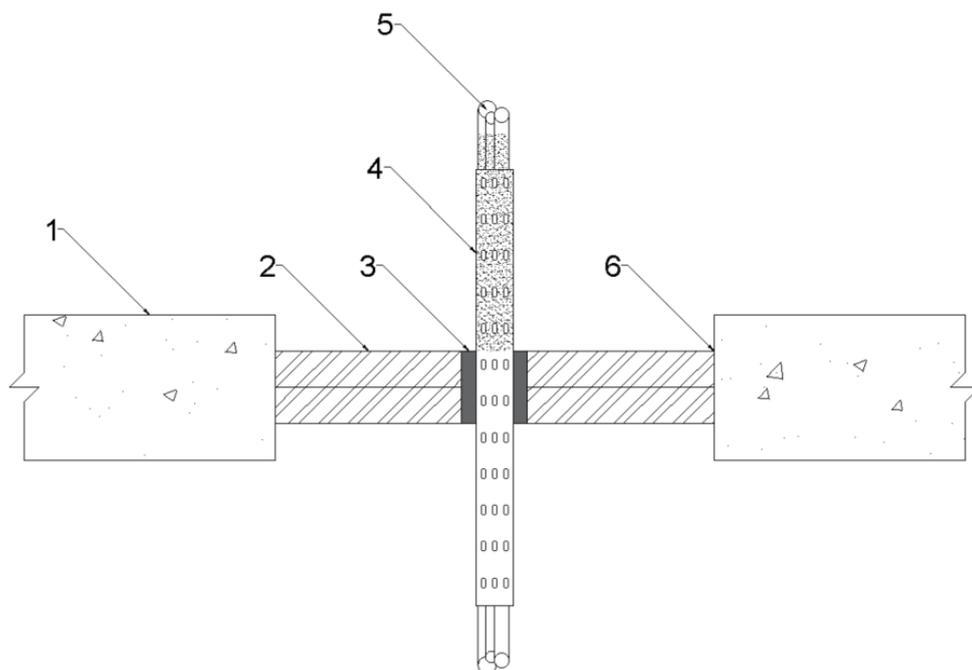
Penetration Seal B37.1.1 Cable Penetrations



Penetration Specification	Classification
500mm perforated cable tray	<b>EI 60</b>
Electrical cables up to 21mm ø	
1 off 'C1' Cable	
1 off 'C2' Cable	
1 off 'C3' Cable	

**Construction details:**

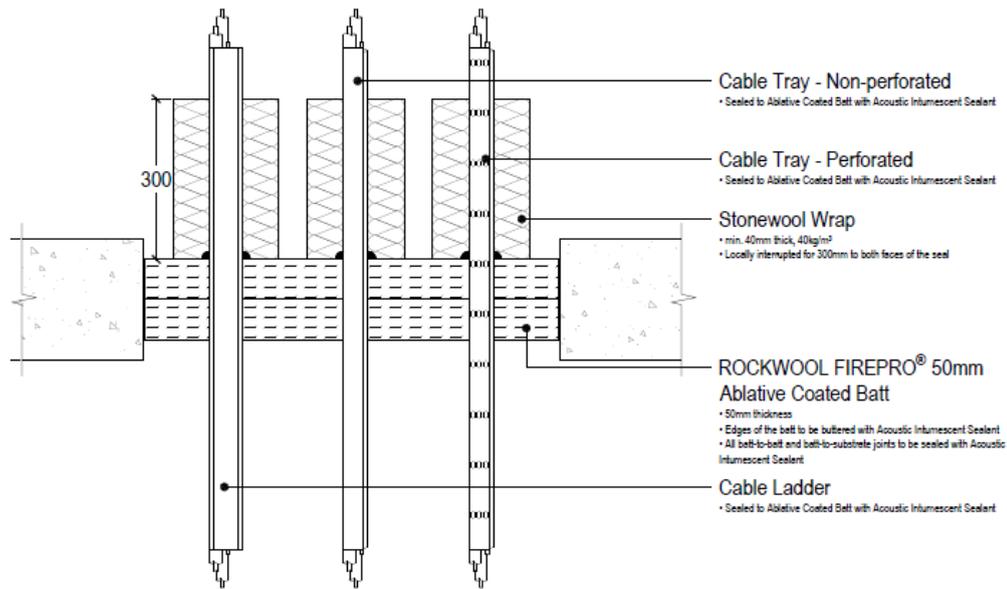
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the floor.
- Max. Aperture size 1100mm wide x 1500mm long
- All cables coated with 2mm DFT FIREPRO® Ablative Liquid 300mm along the cables upper side of the seal.
- FIREPRO® High Expansion Intumescent Sealant 20mm annulus full 25mm depth both sides of the floor
- First service support 400mm from unexposed face (top side)



Penetration Specification	Classification
500mm perforated cable tray	<b>EI 60</b>
Electrical cables up to 21mm $\varnothing$	
1 off 'C1' Cable	
1 off 'C2' Cable	
1 off 'C3' Cable	

**Construction details:**

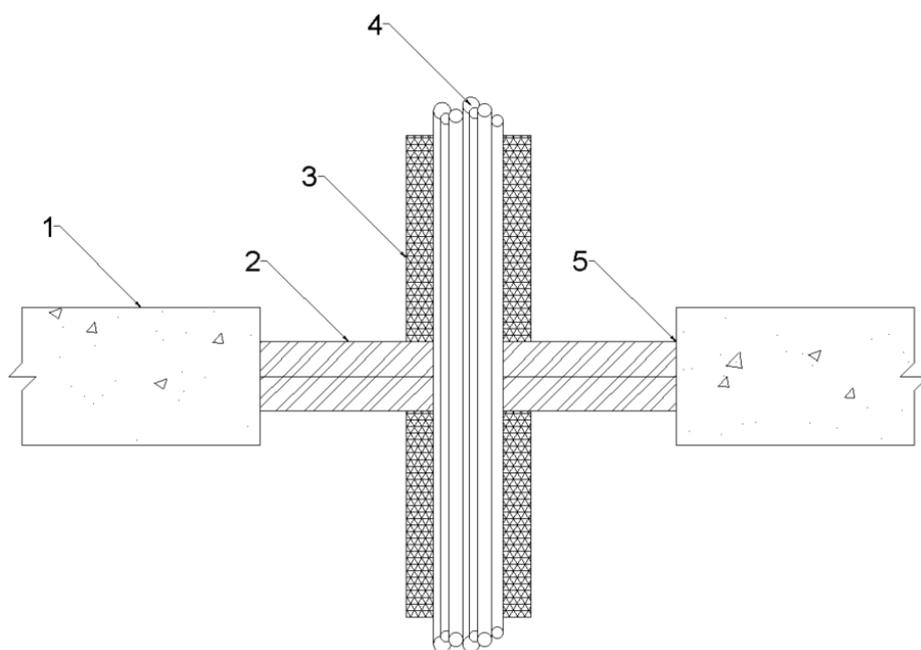
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the floor.
- Max. Aperture size 700mm wide x 1100mm long
- Cables and cable trays wrapped with a single layer of 40mm thick stone wool, min 40kg/m3 (L/I 300mm)
- First service support 400mm from unexposed face (top side)



Service(s)	Classification
Electrical cables up to 80mm dia	<b>EI 60</b>
Cable Trays and Ladders	
100 mm diameter bundle telecommunication cable type "F"	
Unsheathed electrical cables up to 17mm dia	
Unsheathed electrical cables 18-24mm dia	
Steel or Copper Conduits up to 16mm	
Plastic conduits up to 16mm	

**Construction details:**

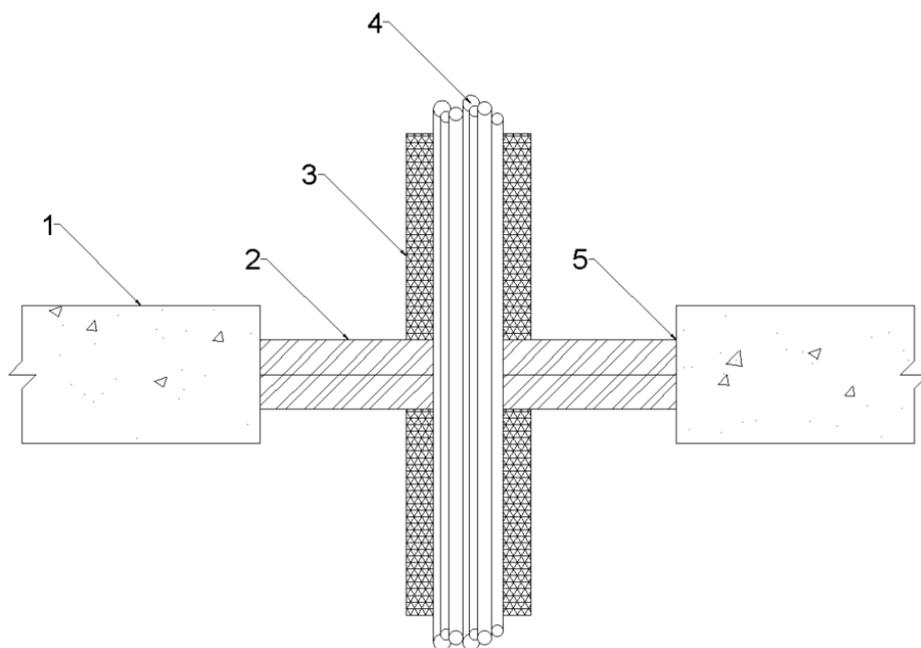
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the floor.
- Max. Aperture size 1100mm wide x 1500mm long
- Cables and cable trays wrapped with a single layer of 40mm thick stone wool, min 40kg/m<sup>3</sup> (L/I 300mm)
- First service support 400mm from unexposed face (top side)



Service(s)	Classification
Electrical cables up to 80mm dia	<b>EI 60</b>
Cable Trays and Ladders	
100 mm diameter bundle telecommunication cable type "F"	
Unsheathed electrical cables up to 17mm dia	
Unsheathed electrical cables 18-24mm dia	
Steel or Copper Conduits up to 16mm	
Plastic conduits up to 16mm	

**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the floor.
- Max. Aperture size 700mm wide x 1100mm long
- First service support 400mm from unexposed face (top side)



Service(s)	Classification
Steel or Copper Pipe 42mm Ø, 1.2mm – 14.2mm wall thickness. (L/I 300mm) 40mm stone wool insulation (min 40Kg/m <sup>3</sup> )	<b>EI 120 C/U</b>
Steel or Copper Pipe 42mm – 159mm Ø, 2mm – 14.2mm wall thickness. (L/I 300mm) 40mm stone wool insulation (min 40Kg/m <sup>3</sup> )	<b>EI 120 C/U</b> <b>EI 30 C/U</b>

**B38 FIREPRO® Ablative Coated Batt Penetration Seal in Rigid Floors min. 150 mm thick**

B38.1 Double Layer (50mm) FIREPRO® Ablative Coated Batt

Penetration Seal B38.1.1 Pattress Installed Electrical Cables

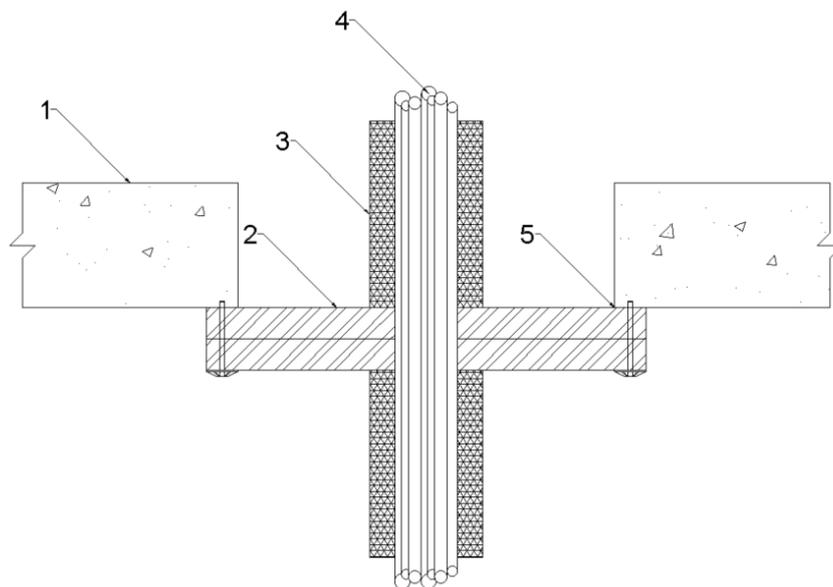
**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) pattress seal fixed to the underside of the floor
- Max. Aperture size 1000mm wide x 1300mm long
- All cables coated with 2mm DFT FIREPRO® Ablative Liquid 300mm along the cables both sides of the seal.
- FIREPRO® High Expansion Intumescent Sealant 20mm annulus full 50mm depth of the FIREPRO® Ablative Coated Batt

Service(s)	Classification
500 mm perforated cable tray	<b>EI 60</b>
Electrical cables up to 21mm dia	
1 off "C1" Cable	
1 off "C2" Cable	
1 off "C3" Cable	

**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) pattress seal fixed to the underside of the floor.
- Max. Aperture size 1000mm wide x 1300mm long
- Cables and cable trays wrapped with a single layer of 40mm thick stone wool, min 40kg/m<sup>3</sup> (L/I 300mm)

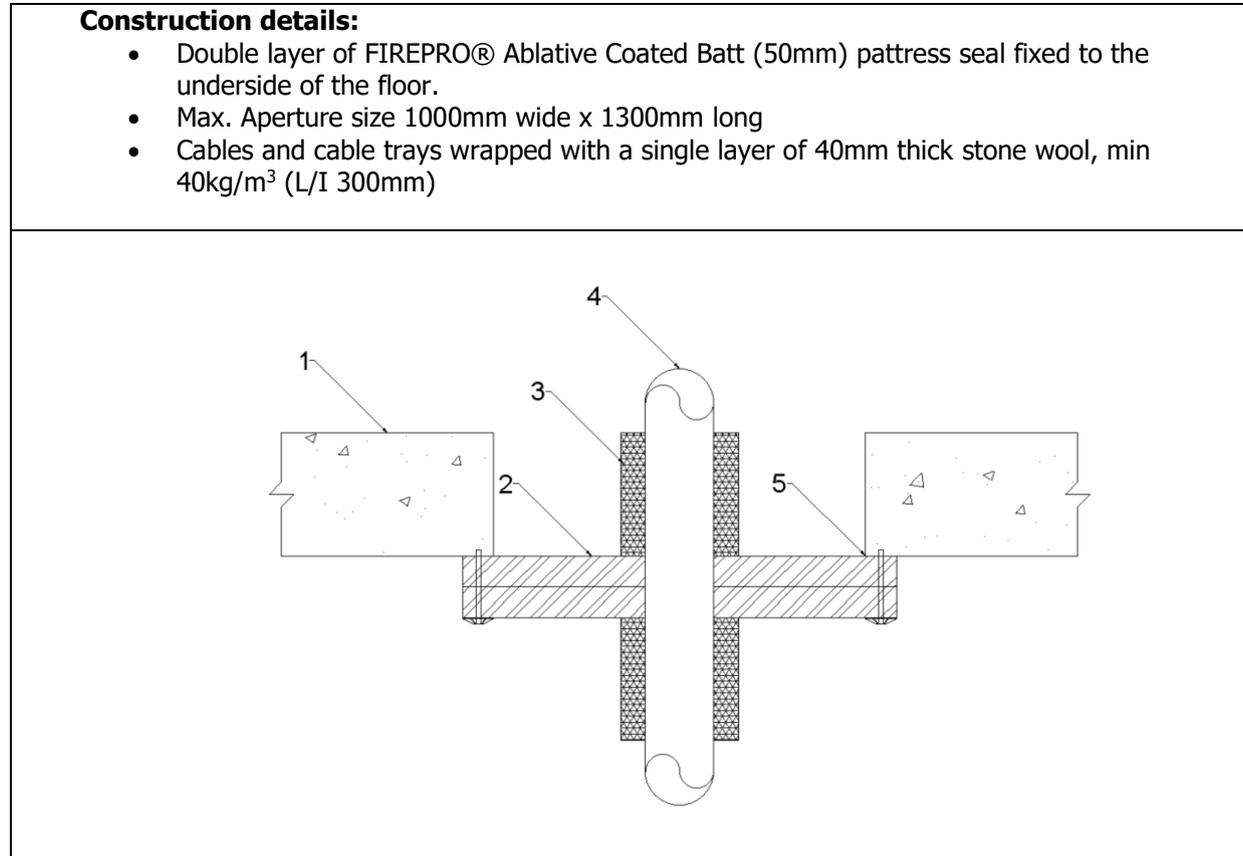


Service(s)	Classification
Electrical cables up to 80mm dia	<b>EI 60</b>
Cable Trays and Ladders	
100 mm diameter bundle telecommunication cable type "F"	
Unsheathed electrical cables up to 17mm dia	
Unsheathed electrical cables 18-24mm dia	
Steel or Copper Conduits up to 16mm	
Plastic conduits up to 16mm	

## B39 FIREPRO® Ablative Coated Batt Penetration Seal in Rigid Floors min. 150 mm thick

B39.1 Double Layer (50mm) FIREPRO® Ablative Coated Batt

Penetration Seal B39.1.1 Pattress Installed Metallic Pipes



Service(s)	Classification
Steel or Copper Pipe 42mm Ø, 1.2mm – 14.2mm wall thickness. (L/I 300mm) 40mm stone wool insulation (min 40Kg/m <sup>3</sup> )	<b>EI 60 C/U</b>
Steel or Copper Pipe 42mm – 159mm Ø, 2mm – 14.2mm wall thickness. (L/I 300mm) 40mm stone wool insulation (min 40Kg/m <sup>3</sup> )	<b>E60 C/U</b> <b>EI 30 C/U</b>

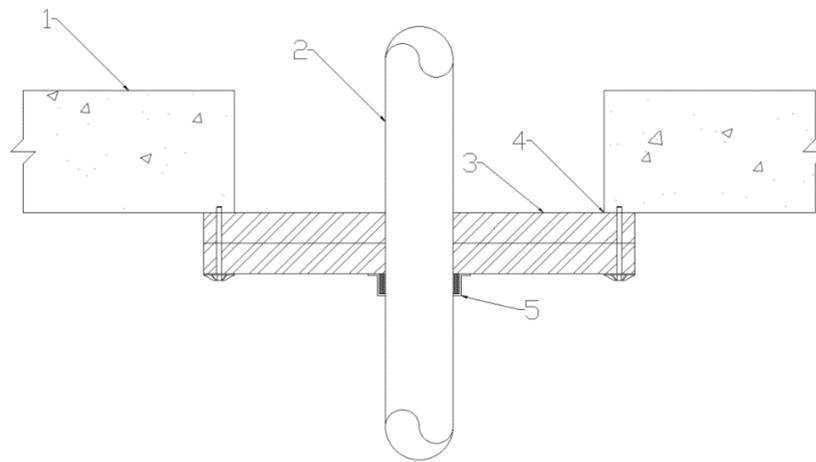
## B40 FIREPRO® Ablative Coated Batt Penetration Seal in Rigid Floors min. 150 mm thick

B40.1 Double Layer (50mm) FIREPRO® Ablative Coated Batt

Penetration Seal B40.1.1 Pattress Installed Plastic Pipes

### Construction details:

- Double layer of FIREPRO® Ablative Coated Batt (50mm) pattress seal fixed to the underside of the floor.
- Max. Aperture size 1000mm wide x 1300mm long



Penetration Specification	FIREPRO® Pipe Collar CE	Classification
Pipe diameters as below Zero distance	Fixed to the underside of the FIREPRO® Ablative Coated Batt utilizing steel pig tail fixings	<b>EI 60 U/C</b>

Penetration Specification	Collar Reference	Intumescent Material
PVC Pipe 32mm Ø 1.8mm wall thickness	32mm FIREPRO® Pipe Collar CE	30mm (W) x 4mm (T)
PVC Pipe 40mm Ø 1.8mm wall thickness	40mm FIREPRO® Pipe Collar CE	
PVC Pipe 50mm Ø 1.8mm wall thickness	50mm FIREPRO® Pipe Collar CE	
PVC Pipe 55mm Ø 2.3-2.8mm wall thickness	55mm FIREPRO® Pipe Collar CE	30mm (W) x 6mm (T)
PVC Pipe 63mm Ø 2.3-2.8mm wall thickness	63mm FIREPRO® Pipe Collar CE	30mm (W) x 8mm (T)
PVC Pipe 75mm Ø 3.1-4.4mm wall thickness	75mm FIREPRO® Pipe Collar CE	
PVC Pipe 82mm Ø 3.1-4.4mm wall thickness	82mm FIREPRO® Pipe Collar CE	
PVC Pipe 90mm Ø 4.2-6.6mm wall thickness	90mm FIREPRO® Pipe Collar CE	30mm (W) x 10mm (T)
PVC Pipe 100mm Ø 4.2-6.6mm wall thickness	100mm FIREPRO® Pipe Collar CE	
PVC Pipe 110mm Ø 4.2-6.6mm wall thickness	110mm FIREPRO® Pipe Collar CE	
PVC Pipe 125mm Ø 6.0mm wall thickness	125mm FIREPRO® Pipe Collar CE	40mm (W) x 12mm (T)
PVC Pipe 140mm Ø 6.1-7.5mm wall thickness	140mm FIREPRO® Pipe Collar CE	
PVC Pipe 160mm Ø 6.2-9.5mm wall thickness	160mm FIREPRO® Pipe Collar CE	

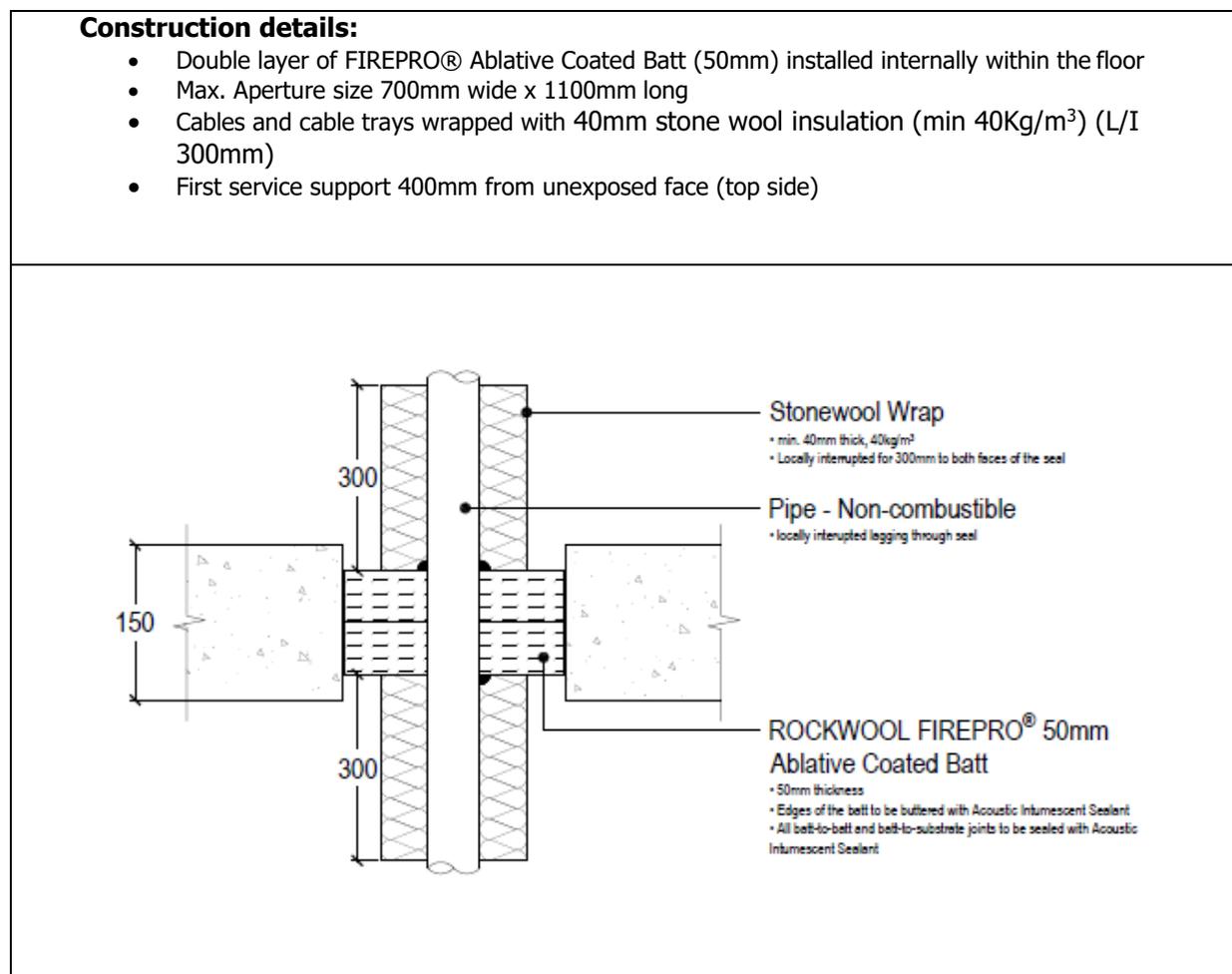
Penetration Specification	Collar Reference	Intumescent Material
PP Pipe 32mm Ø 2.9mm wall thickness	32mm FIREPRO® Pipe Collar CE	30mm (W) x 4mm (T)
PP Pipe 40mm Ø 2.9mm wall thickness	40mm FIREPRO® Pipe Collar CE	
PP Pipe 50mm Ø 2.9mm wall thickness	50mm FIREPRO® Pipe Collar CE	
PP Pipe 55mm Ø 2.9-4.4mm wall thickness	55mm FIREPRO® Pipe Collar CE	30mm (W) x 6mm (T)
PP Pipe 63mm Ø 2.9-4.4mm wall thickness	63mm FIREPRO® Pipe Collar CE	30mm (W) x 8mm (T)
PP Pipe 75mm Ø 2.8-6.7mm wall thickness	75mm FIREPRO® Pipe Collar CE	
PP Pipe 82mm Ø 2.8-6.7mm wall thickness	82mm FIREPRO® Pipe Collar CE	
PP Pipe 90mm Ø 2.7-10.0mm wall thickness	90mm FIREPRO® Pipe Collar CE	30mm (W) x 10mm (T)
PP Pipe 100mm Ø 2.7-10.0mm wall thickness	100mm FIREPRO® Pipe Collar CE	
PP Pipe 110mm Ø 2.7-10.0mm wall thickness	110mm FIREPRO® Pipe Collar CE	
PP Pipe 125mm Ø 3.1mm wall thickness	125mm FIREPRO® Pipe Collar CE	40mm (W) x 12mm (T)
PP Pipe 140mm Ø 3.5-8.0mm wall thickness	140mm FIREPRO® Pipe Collar CE	
PP Pipe 160mm Ø 4.0-14.6mm wall thickness	160mm FIREPRO® Pipe Collar CE	

Penetration Specification	Collar Reference	Intumescent Material
PE Pipe 32mm Ø 2.9mm wall thickness	32mm FIREPRO® Pipe Collar CE	30mm (W) x 4mm (T)
PE Pipe 40mm Ø 2.9mm wall thickness	40mm FIREPRO® Pipe Collar CE	
PE Pipe 50mm Ø 2.9mm wall thickness	50mm FIREPRO® Pipe Collar CE	
PE Pipe 55mm Ø 2.9-4.4mm wall thickness	55mm FIREPRO® Pipe Collar CE	30mm (W) x 6mm (T)
PE Pipe 63mm Ø 2.9-4.4mm wall thickness	63mm FIREPRO® Pipe Collar CE	30mm (W) x 8mm (T)
PE Pipe 75mm Ø 2.8-6.7mm wall thickness	75mm FIREPRO® Pipe Collar CE	
PE Pipe 82mm Ø 2.8-6.7mm wall thickness	82mm FIREPRO® Pipe Collar CE	
PE Pipe 90mm Ø 2.7-10.0mm wall thickness	90mm FIREPRO® Pipe Collar CE	30mm (W) x 10mm (T)
PE Pipe 100mm Ø 2.7-10.0mm wall thickness	100mm FIREPRO® Pipe Collar CE	
PE Pipe 110mm Ø 2.7-10.0mm wall thickness	110mm FIREPRO® Pipe Collar CE	
PE Pipe 125mm Ø 3.1mm wall thickness	125mm FIREPRO® Pipe Collar CE	40mm (W) x 12mm (T)
PE Pipe 140mm Ø 3.9-5.8mm wall thickness	140mm FIREPRO® Pipe Collar CE	
PE Pipe 160mm Ø 4.9-9.5mm wall thickness	160mm FIREPRO® Pipe Collar CE	

## B41 FIREPRO® Ablative Coated Batt Penetration Seal in Rigid Floors min. 150 mm thick

### B41.1 Double Layer (50mm) FIREPRO® Ablative Coated Batt

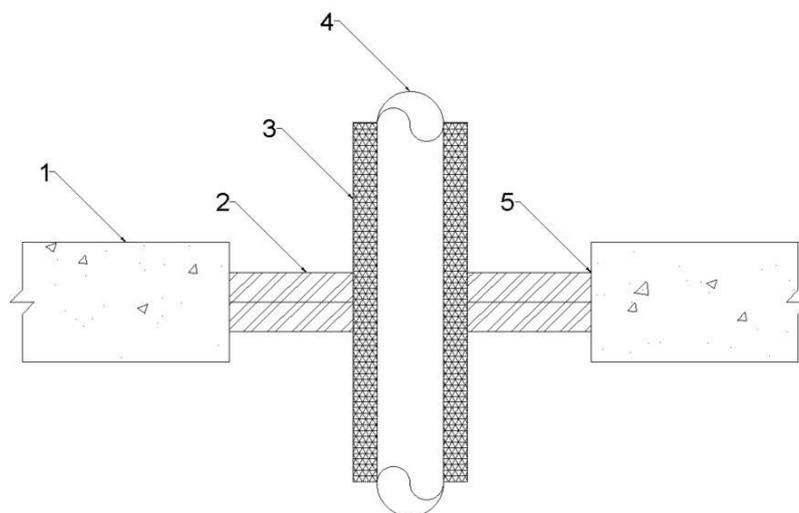
#### Penetration Seal B41.1.1 Metallic pipe penetrations



Service(s)	Classification
Steel or Copper Pipe 42mm Ø, 1.2mm – 14.2mm wall thickness.	<b>EI 120 C/U</b>
Steel or Copper Pipe 42mm – 159mm Ø, 2mm – 14.2mm wall thickness.	<b>E 120 C/U</b> <b>EI 30 C/U</b>

**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the floorl.
- Max. Aperture size 1100mm wide x 1500mm long
- Cables and cable trays wrapped with 40mm stone wool insulation (min 40Kg/m<sup>3</sup>) (L/I 300mm)
- First service support 400mm from unexposed face (top side)

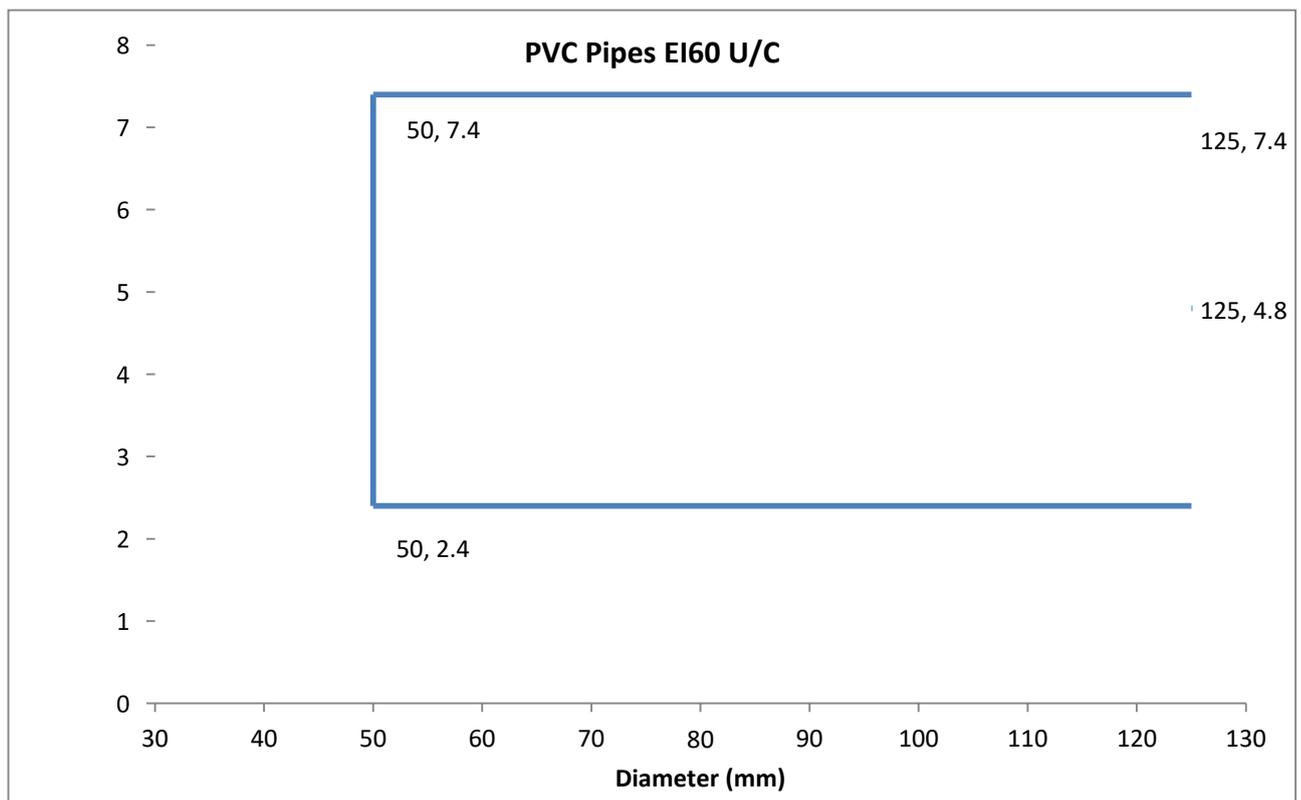
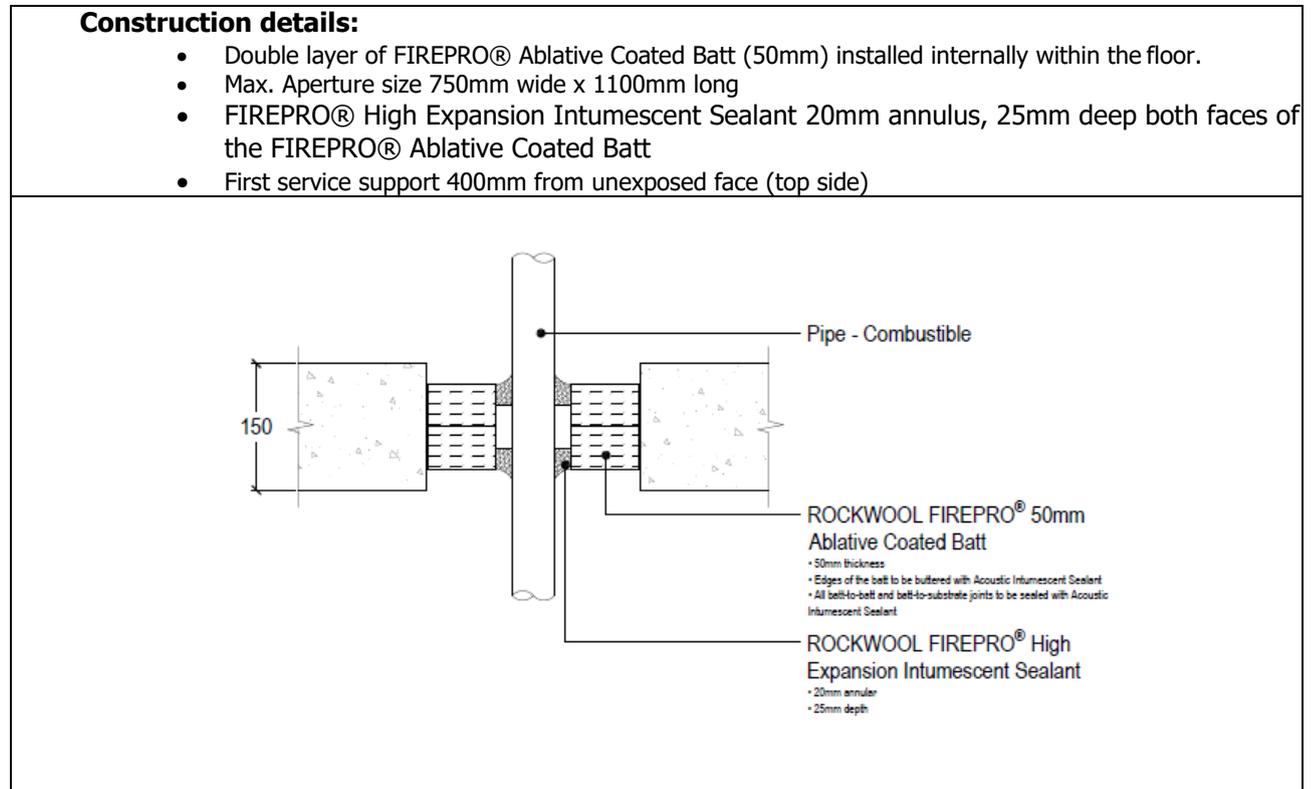


Service(s)	Classification
Steel or Copper Pipe 42mm Ø, 1.2mm – 14.2mm wall thickness. (L/I 300mm) 40mm stone wool insulation (min 40Kg/m <sup>3</sup> )	<b>E 90 C/U</b> <b>EI 60 C/U</b>
Steel or Copper Pipe 42mm Ø, 2mm – 14.2mm wall thickness. (L/I 300mm) 40mm stone wool insulation (min 40Kg/m <sup>3</sup> )	<b>E 90 C/U</b> <b>EI 30 C/U</b>

## B42 FIREPRO® Ablative Coated Batt Penetration Seal in Rigid Floors min. 150 mm thick

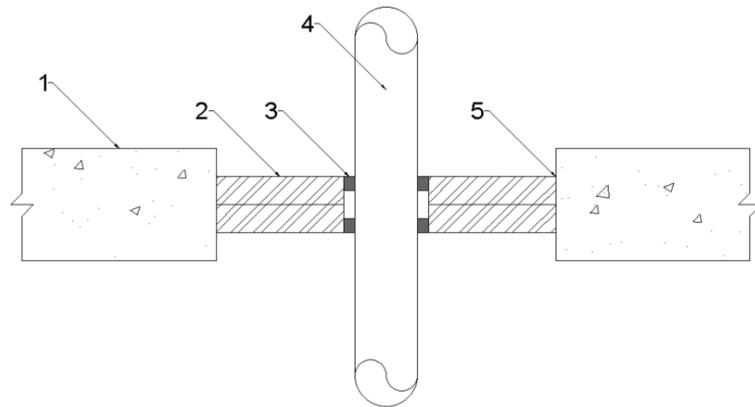
### B42.1 Double Layer (50mm) FIREPRO® Ablative Coated Batt

#### Penetration Seal B42.1.1 Plastic pipe penetrations

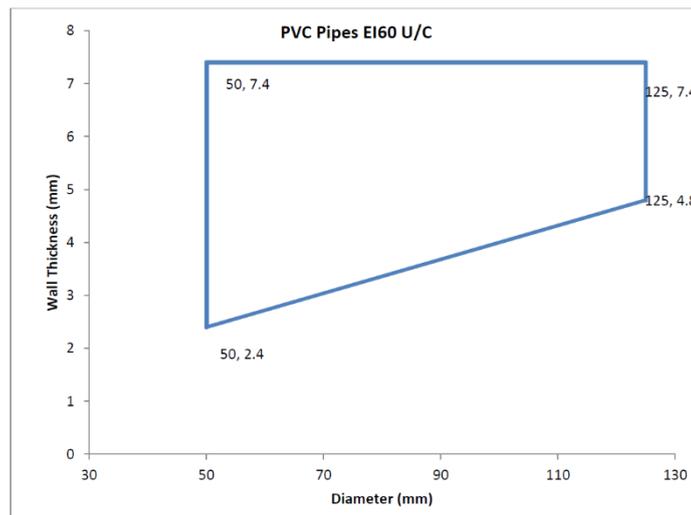


**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the floor.
- Max. Aperture size 1000mm wide x 1300mm long

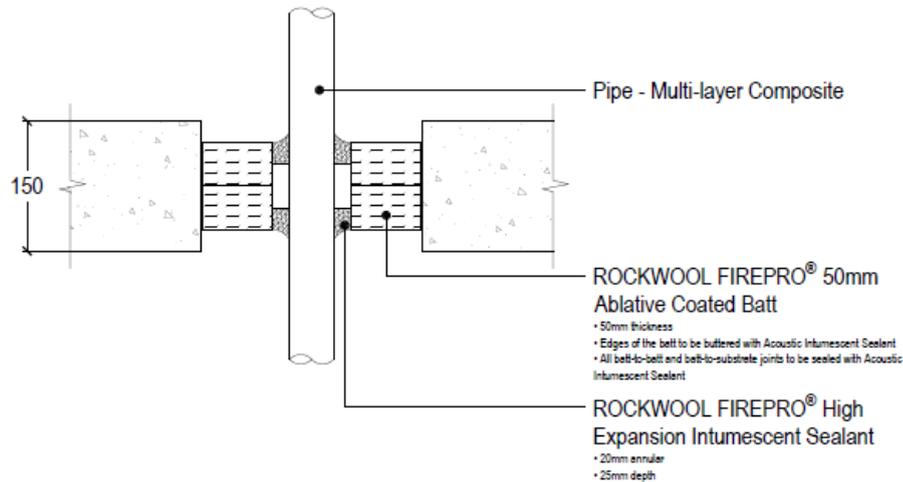


Service(s)	FIREPRO® High Expansion Intumescent Sealant	Classification
Pipe diameters as below	20mm annulus, 25mm deep both faces of the FIREPRO® Ablative Coated Batt	See graphs below



**Construction details:**

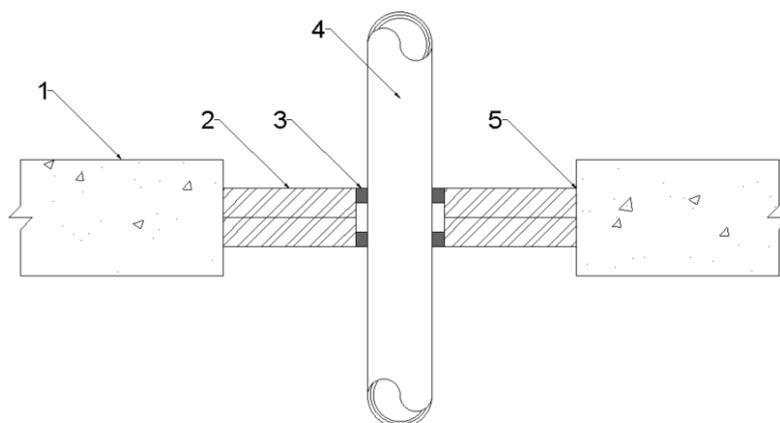
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the floor.
- Max. Aperture size 750mm wide x 1100mm long
- FIREPRO® High Expansion Intumescent Sealant 20mm annulus, 25mm deep both faces of the FIREPRO® Ablative Coated Batt
- First service support 400mm from unexposed face (top side)



Penetration Specification	Classification
Uponor MLC (Multi-Layer Composite) Pipe 40mm ø 4mm wall thickness	<b>EI 60 U/C</b>
Uponor MLC (Multi-Layer Composite) Pipe 50mm ø 4.5mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 63mm ø 6mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 75mm ø 7.5mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 90mm ø 8.5mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 110mm ø 10mm wall thickness	

**Construction details:**

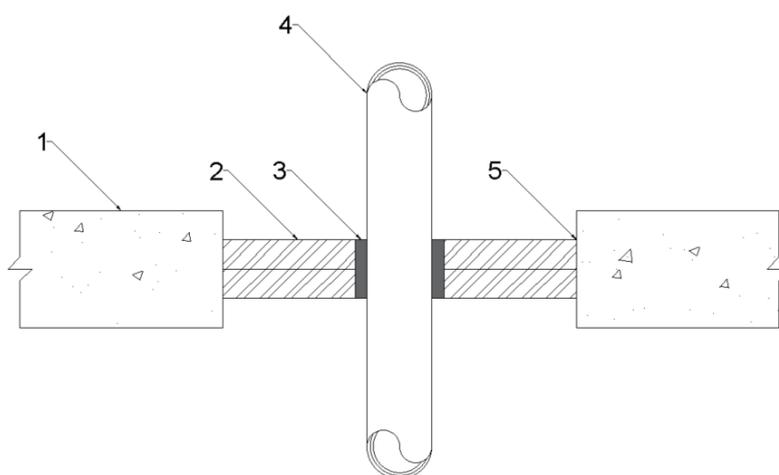
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the floor.
- Max. Aperture size 1000mm wide x 1300mm long
- FIREPRO® High Expansion Intumescent Sealant 20mm annulus, 50mm depth of the FIREPRO® Ablative Coated Batt



Penetration Specification	Classification
Uponor MLC (Multi-Layer Composite) Pipe 40mm $\varnothing$ 4mm wall thickness	<b>EI 60 U/C</b>
Uponor MLC (Multi-Layer Composite) Pipe 50mm $\varnothing$ 4.5mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 63mm $\varnothing$ 6mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 75mm $\varnothing$ 7.5mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 90mm $\varnothing$ 8.5mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 110mm $\varnothing$ 10mm wall thickness	

**Construction details:**

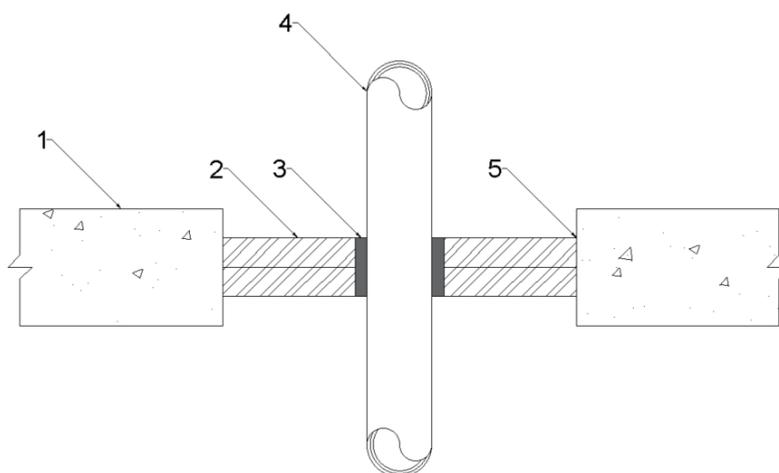
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the floor.
- Max. Aperture size 750mm wide x 1100mm long
- FIREPRO® High Expansion Intumescent Sealant 20mm annulus, 25mm deep both faces of the FIREPRO® Ablative Coated Batt
- First service support 400mm from unexposed face (top side)



Penetration Specification	Classification
Uponor MLC (Multi-Layer Composite) Pipe 40mm $\varnothing$ 4mm wall thickness	<b>EI 60 U/C</b>
Uponor MLC (Multi-Layer Composite) Pipe 50mm $\varnothing$ 4.5mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 63mm $\varnothing$ 6mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 75mm $\varnothing$ 7.5mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 90mm $\varnothing$ 8.5mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 110mm $\varnothing$ 10mm wall thickness	

**Construction details:**

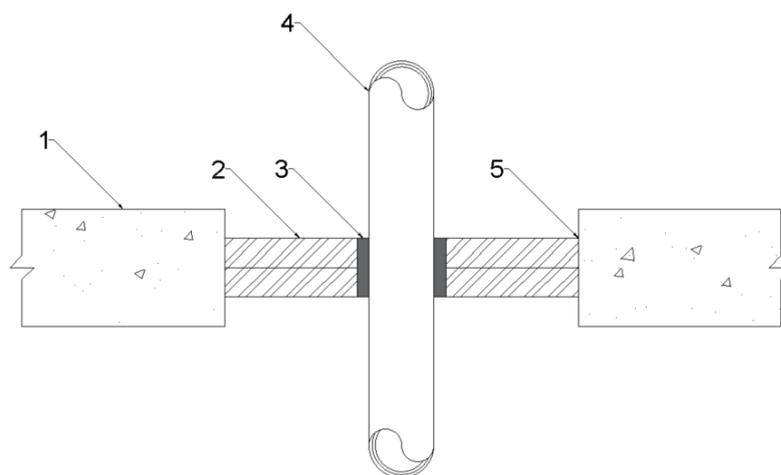
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the floor.
- Max. Aperture size 1100mm wide x 1500mm long
- FIREPRO® High Expansion Intumescent Sealant 20mm annulus, 25mm deep both faces of the FIREPRO® Ablative Coated Batt
- First service support 400mm from unexposed face (top side)



Penetration Specification	Classification
Uponor MLC (Multi-Layer Composite) Pipe 40mm ø 4mm wall thickness	<b>EI 60 U/C</b>
Uponor MLC (Multi-Layer Composite) Pipe 50mm ø 4.5mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 63mm ø 6mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 75mm ø 7.5mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 90mm ø 8.5mm wall thickness	
Uponor MLC (Multi-Layer Composite) Pipe 110mm ø 10mm wall thickness	

**Construction details:**

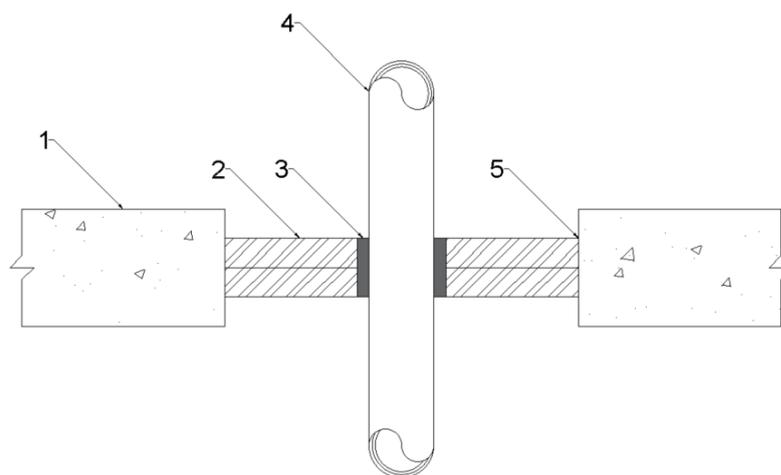
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the floor.
- Max. Aperture size 350mm wide x 1000mm long
- FIREPRO® High Expansion Intumescent Sealant 20mm annulus, 25mm deep both faces of the FIREPRO® Ablative Coated Batt
- First service support 400mm from unexposed face (top side)



Penetration Specification	FIREPRO® Intumescent Pipe Wrap Roll/ Intumescent Pipe Wrap CE	Classification
PVC Pipe up to 125mm Ø, 4.8-7.4mm wall thickness.	2 mm thickness	<b>EI 120 U/C</b>
PVC Pipe up to 40mm Ø, 3.1-17.1mm wall thickness.	2 mm thickness	
PVC Pipe up to 125mm Ø, 11.4mm wall thickness.	2 mm thickness	
PVC Pipe up to 125mm Ø, 3.1-11.4mm wall thickness.	2 mm thickness	<b>E120 U/C EI 90 U/C</b>

**Construction details:**

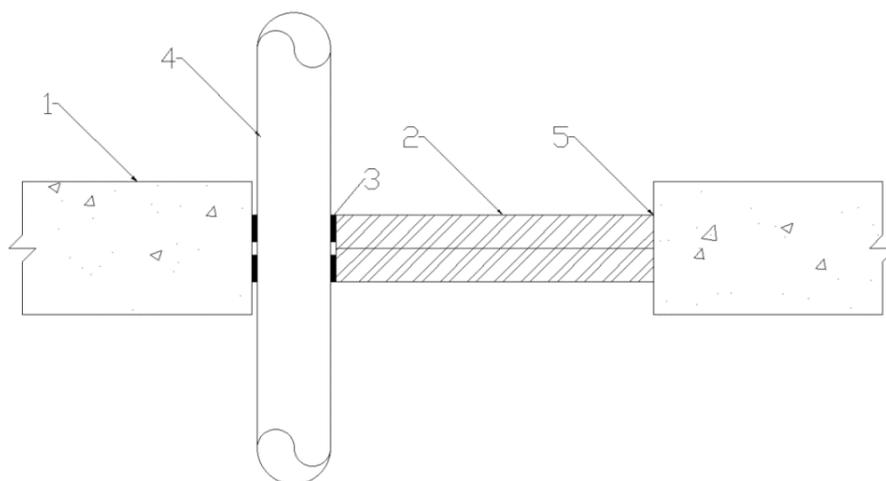
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the floor.
- Max. Aperture size 110mm wide x 1500mm long
- FIREPRO® High Expansion Intumescent Sealant 20mm annulus, 25mm deep both faces of the FIREPRO® Ablative Coated Batt
- First service support 400mm from unexposed face (top side)



Penetration Specification	FIREPRO® Intumescent Pipe Wrap Roll/ Intumescent Pipe Wrap CE	Classification
PVC Pipe up to 125mm Ø, 4.8-7.4mm wall thickness.	2 mm thickness	<b>EI 60 U/C</b>
PVC Pipe up to 40mm Ø, 3.1-17.1mm wall thickness.	2 mm thickness	
PVC Pipe up to 125mm Ø, 11.4mm wall thickness.	2 mm thickness	
PVC Pipe up to 125mm Ø, 3.1-11.4mm wall thickness.	2 mm thickness	

**Construction details:**

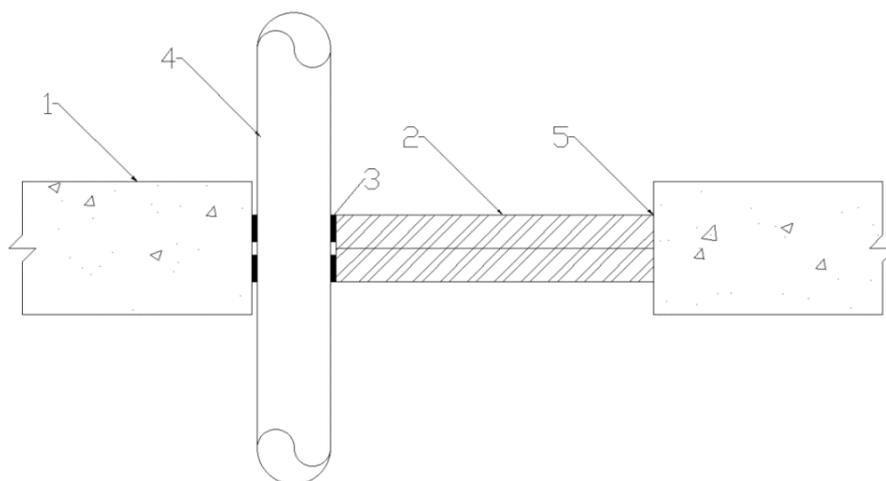
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the floor.
- Max. Aperture size 350mm wide x 1000mm long
- FIREPRO® Intumescent Pipe Wrap Roll/FIREPRO® Intumescent Pipe Wrap CE secured internally within both faces of the FIREPRO® Ablative Coated Batt



Penetration Specification	FIREPRO® Intumescent Pipe Wrap Roll/FIREPRO® Intumescent Pipe Wrap CE Ref	Classification
PVC Pipe up to 125mm Ø, 4.8-7.4mm wall thickness.	2 mm thickness	<b>EI 120 U/C</b>
PVC Pipe up to 40mm Ø, 3.1-17.1mm wall thickness.	2 mm thickness	
PVC Pipe up to 125mm Ø, 11.4mm wall thickness.	2 mm thickness	
PVC Pipe up to 125mm Ø, 3.1-11.4mm wall thickness.	2 mm thickness	<b>E 120 U/C EI 90 U/C</b>

**Construction details:**

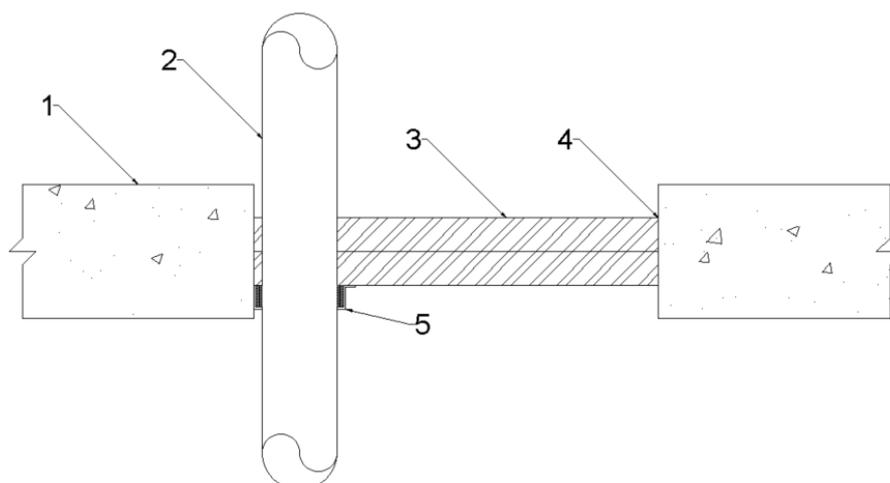
- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the floor.
- Max. Aperture size 350mm wide x 1000mm long
- FIREPRO® Intumescent Pipe Wrap Roll/FIREPRO® Intumescent Pipe Wrap CE secured internally within both faces of the FIREPRO® Ablative Coated Batt



Penetration Specification	FIREPRO® Intumescent Pipe Wrap Roll/FIREPRO® Intumescent Pipe Wrap CE Ref	Classification
PVC Pipe up to 125mm Ø, 4.8-7.4mm wall thickness.	2 mm thickness	<b>EI 60 U/C</b>
PVC Pipe up to 40mm Ø, 3.1-17.1mm wall thickness.	2 mm thickness	
PVC Pipe up to 125mm Ø, 11.4mm wall thickness.	2 mm thickness	
PVC Pipe up to 125mm Ø, 3.1-11.4mm wall thickness.	2 mm thickness	

**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the floor.
- Max. Aperture size 350mm wide x 1000mm long
- FIREPRO® Intumescent Pipe Wrap Roll/FIREPRO® Intumescent Pipe Wrap CE secured internally within both faces of the FIREPRO® Ablative Coated Batt



Penetration Specification	FIREPRO® Pipe Collar CE	Classification
Pipe diameters as below Zero distance	Fixed to the underside of the FIREPRO® Ablative Coated Batt utilizing steel pig tail fixings	<b>EI 120 U/C</b>

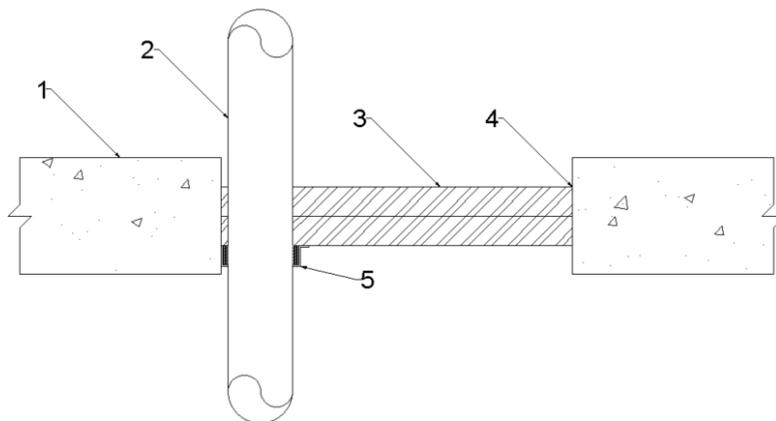
Penetration Specification	Collar Reference	Intumescent Material
PVC Pipe 32mm Ø 1.8mm wall thickness	32mm FIREPRO® Pipe Collar CE	30mm (W) x 4mm (T)
PVC Pipe 40mm Ø 1.8mm wall thickness	40mm FIREPRO® Pipe Collar CE	
PVC Pipe 50mm Ø 1.8mm wall thickness	50mm FIREPRO® Pipe Collar CE	30mm (W) x 6mm (T)
PVC Pipe 55mm Ø 2.3-2.8mm wall thickness	55mm FIREPRO® Pipe Collar CE	
PVC Pipe 63mm Ø 2.3-2.8mm wall thickness	63mm FIREPRO® Pipe Collar CE	30mm (W) x 8mm (T)
PVC Pipe 75mm Ø 3.1-4.4mm wall thickness	75mm FIREPRO® Pipe Collar CE	
PVC Pipe 82mm Ø 3.1-4.4mm wall thickness	82mm FIREPRO® Pipe Collar CE	30mm (W) x 10mm (T)
PVC Pipe 90mm Ø 4.2-6.6mm wall thickness	90mm FIREPRO® Pipe Collar CE	
PVC Pipe 100mm Ø 4.2-6.6mm wall thickness	100mm FIREPRO® Pipe Collar CE	40mm (W) x 12mm (T)
PVC Pipe 110mm Ø 4.2-6.6mm wall thickness	110mm FIREPRO® Pipe Collar CE	
PVC Pipe 125mm Ø 6.0mm wall thickness	125mm FIREPRO® Pipe Collar CE	40mm (W) x 12mm (T)
PVC Pipe 140mm Ø 6.1-7.5mm wall thickness	140mm FIREPRO® Pipe Collar CE	
PVC Pipe 160mm Ø 6.2-9.5mm wall thickness	160mm FIREPRO® Pipe Collar CE	

Penetration Specification	Collar Reference	Intumescent Material
PP Pipe 32mm Ø 2.9mm wall thickness	32mm FIREPRO® Pipe Collar CE	30mm (W) x 4mm (T)
PP Pipe 40mm Ø 2.9mm wall thickness	40mm FIREPRO® Pipe Collar CE	
PP Pipe 50mm Ø 2.9mm wall thickness	50mm FIREPRO® Pipe Collar CE	
PP Pipe 55mm Ø 2.9-4.4mm wall thickness	55mm FIREPRO® Pipe Collar CE	30mm (W) x 6mm (T)
PP Pipe 63mm Ø 2.9-4.4mm wall thickness	63mm FIREPRO® Pipe Collar CE	
PP Pipe 75mm Ø 2.8-6.7mm wall thickness	75mm FIREPRO® Pipe Collar CE	30mm (W) x 8mm (T)
PP Pipe 82mm Ø 2.8-6.7mm wall thickness	82mm FIREPRO® Pipe Collar CE	
PP Pipe 90mm Ø 2.7-10.0mm wall thickness	90mm FIREPRO® Pipe Collar CE	30mm (W) x 10mm (T)
PP Pipe 100mm Ø 2.7-10.0mm wall thickness	100mm FIREPRO® Pipe Collar CE	
PP Pipe 110mm Ø 2.7-10.0mm wall thickness	110mm FIREPRO® Pipe Collar CE	
PP Pipe 125mm Ø 3.1mm wall thickness	125mm FIREPRO® Pipe Collar CE	40mm (W) x 12mm (T)
PP Pipe 140mm Ø 3.5-8.0mm wall thickness	140mm FIREPRO® Pipe Collar CE	
PP Pipe 160mm Ø 4.0-14.6mm wall thickness	160mm FIREPRO® Pipe Collar CE	

Penetration Specification	Collar Reference	Intumescent Material
PE Pipe 32mm Ø 2.9mm wall thickness	32mm FIREPRO® Pipe Collar CE	30mm (W) x 4mm (T)
PE Pipe 40mm Ø 2.9mm wall thickness	40mm FIREPRO® Pipe Collar CE	
PE Pipe 50mm Ø 2.9mm wall thickness	50mm FIREPRO® Pipe Collar CE	
PE Pipe 55mm Ø 2.9-4.4mm wall thickness	55mm FIREPRO® Pipe Collar CE	30mm (W) x 6mm (T)
PE Pipe 63mm Ø 2.9-4.4mm wall thickness	63mm FIREPRO® Pipe Collar CE	
PE Pipe 75mm Ø 2.8-6.7mm wall thickness	75mm FIREPRO® Pipe Collar CE	30mm (W) x 8mm (T)
PE Pipe 82mm Ø 2.8-6.7mm wall thickness	82mm FIREPRO® Pipe Collar CE	
PE Pipe 90mm Ø 2.7-10.0mm wall thickness	90mm FIREPRO® Pipe Collar CE	30mm (W) x 10mm (T)
PE Pipe 100mm Ø 2.7-10.0mm wall thickness	100mm FIREPRO® Pipe Collar CE	
PE Pipe 110mm Ø 2.7-10.0mm wall thickness	110mm FIREPRO® Pipe Collar CE	
PE Pipe 125mm Ø 3.1mm wall thickness	125mm FIREPRO® Pipe Collar CE	40mm (W) x 12mm (T)
PE Pipe 140mm Ø 3.9-5.8mm wall thickness	140mm FIREPRO® Pipe Collar CE	
PE Pipe 160mm Ø 4.9-9.5mm wall thickness	160mm FIREPRO® Pipe Collar CE	

**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the floor.
- Max. Aperture size 1000mm wide x 1300mm long
- FIREPRO® Intumescent Pipe Wrap Roll/FIREPRO® Intumescent Pipe Wrap CE secured internally within both faces of the FIREPRO® Ablative Coated Batt



Penetration Specification	FIREPRO® Pipe Collar CE	Classification
Pipe diameters as below Zero distance	Fixed to the underside of the FIREPRO® Ablative Coated Batt utilizing steel pig tail fixings	<b>EI 60 U/C</b>

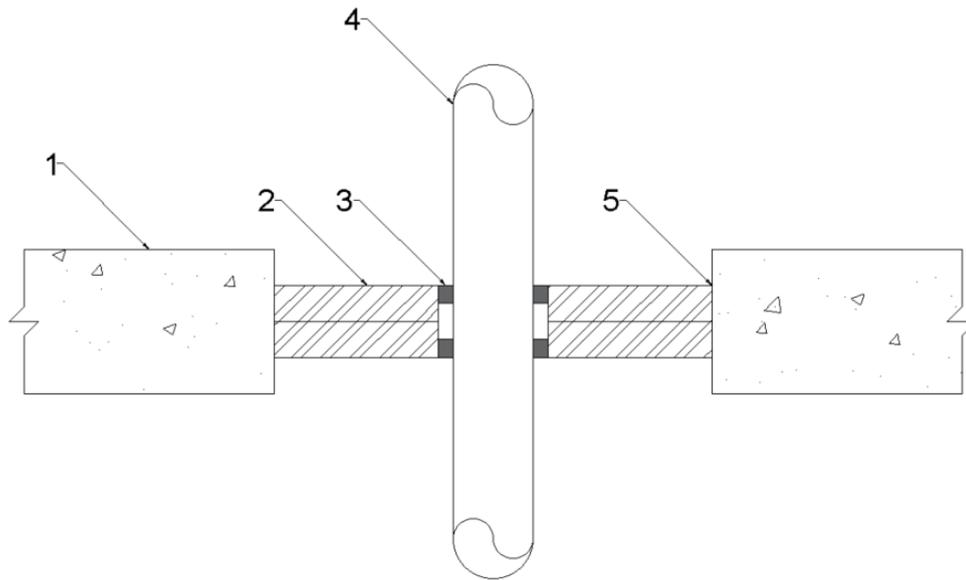
Penetration Specification	Collar Reference	Intumescent Material
PVC Pipe 32mm Ø 1.8mm wall thickness	32mm FIREPRO® Pipe Collar CE	30mm (W) x 4mm (T)
PVC Pipe 40mm Ø 1.8mm wall thickness	40mm FIREPRO® Pipe Collar CE	
PVC Pipe 50mm Ø 1.8mm wall thickness	50mm FIREPRO® Pipe Collar CE	
PVC Pipe 55mm Ø 2.3-2.8mm wall thickness	55mm FIREPRO® Pipe Collar CE	30mm (W) x 6mm (T)
PVC Pipe 63mm Ø 2.3-2.8mm wall thickness	63mm FIREPRO® Pipe Collar CE	
PVC Pipe 75mm Ø 3.1-4.4mm wall thickness	75mm FIREPRO® Pipe Collar CE	30mm (W) x 8mm (T)
PVC Pipe 82mm Ø 3.1-4.4mm wall thickness	82mm FIREPRO® Pipe Collar CE	
PVC Pipe 90mm Ø 4.2-6.6mm wall thickness	90mm FIREPRO® Pipe Collar CE	30mm (W) x 10mm (T)
PVC Pipe 100mm Ø 4.2-6.6mm wall thickness	100mm FIREPRO® Pipe Collar CE	
PVC Pipe 110mm Ø 4.2-6.6mm wall thickness	110mm FIREPRO® Pipe Collar CE	
PVC Pipe 125mm Ø 6.0mm wall thickness	125mm FIREPRO® Pipe Collar CE	40mm (W) x 12mm (T)
PVC Pipe 140mm Ø 6.1-7.5mm wall thickness	140mm FIREPRO® Pipe Collar CE	
PVC Pipe 160mm Ø 6.2-9.5mm wall thickness	160mm FIREPRO® Pipe Collar CE	

Penetration Specification	Collar Reference	Intumescent Material
PP Pipe 32mm Ø 2.9mm wall thickness	32mm FIREPRO® Pipe Collar CE	30mm (W) x 4mm (T)
PP Pipe 40mm Ø 2.9mm wall thickness	40mm FIREPRO® Pipe Collar CE	
PP Pipe 50mm Ø 2.9mm wall thickness	50mm FIREPRO® Pipe Collar CE	
PP Pipe 55mm Ø 2.9-4.4mm wall thickness	55mm FIREPRO® Pipe Collar CE	30mm (W) x 6mm (T)
PP Pipe 63mm Ø 2.9-4.4mm wall thickness	63mm FIREPRO® Pipe Collar CE	
PP Pipe 75mm Ø 2.8-6.7mm wall thickness	75mm FIREPRO® Pipe Collar CE	30mm (W) x 8mm (T)
PP Pipe 82mm Ø 2.8-6.7mm wall thickness	82mm FIREPRO® Pipe Collar CE	
PP Pipe 90mm Ø 2.7-10.0mm wall thickness	90mm FIREPRO® Pipe Collar CE	30mm (W) x 10mm (T)
PP Pipe 100mm Ø 2.7-10.0mm wall thickness	100mm FIREPRO® Pipe Collar CE	
PP Pipe 110mm Ø 2.7-10.0mm wall thickness	110mm FIREPRO® Pipe Collar CE	
PP Pipe 125mm Ø 3.1mm wall thickness	125mm FIREPRO® Pipe Collar CE	40mm (W) x 12mm (T)
PP Pipe 140mm Ø 3.5-8.0mm wall thickness	140mm FIREPRO® Pipe Collar CE	
PP Pipe 160mm Ø 4.0-14.6mm wall thickness	160mm FIREPRO® Pipe Collar CE	

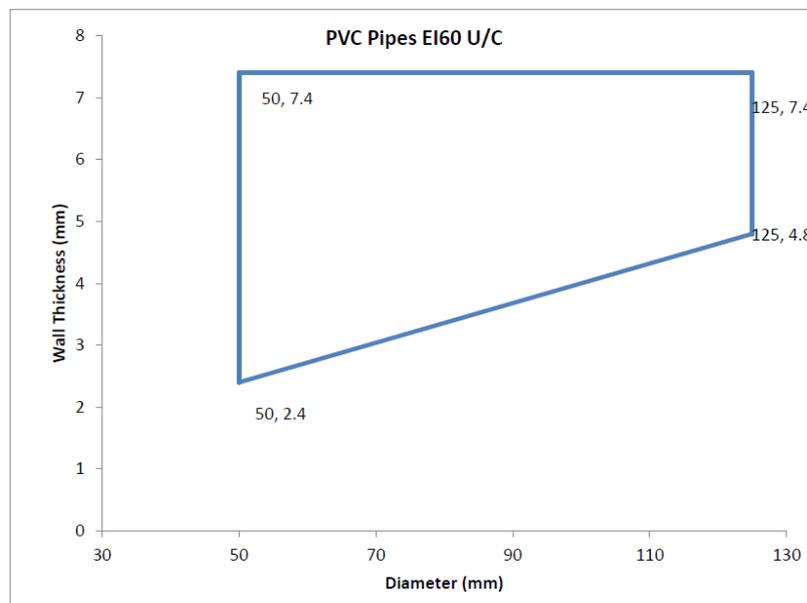
Penetration Specification	Collar Reference	Intumescent Material
PE Pipe 32mm Ø 2.9mm wall thickness	32mm FIREPRO® Pipe Collar CE	30mm (W) x 4mm (T)
PE Pipe 40mm Ø 2.9mm wall thickness	40mm FIREPRO® Pipe Collar CE	
PE Pipe 50mm Ø 2.9mm wall thickness	50mm FIREPRO® Pipe Collar CE	
PE Pipe 55mm Ø 2.9-4.4mm wall thickness	55mm FIREPRO® Pipe Collar CE	30mm (W) x 6mm (T)
PE Pipe 63mm Ø 2.9-4.4mm wall thickness	63mm FIREPRO® Pipe Collar CE	
PE Pipe 75mm Ø 2.8-6.7mm wall thickness	75mm FIREPRO® Pipe Collar CE	30mm (W) x 8mm (T)
PE Pipe 82mm Ø 2.8-6.7mm wall thickness	82mm FIREPRO® Pipe Collar CE	
PE Pipe 90mm Ø 2.7-10.0mm wall thickness	90mm FIREPRO® Pipe Collar CE	30mm (W) x 10mm (T)
PE Pipe 100mm Ø 2.7-10.0mm wall thickness	100mm FIREPRO® Pipe Collar CE	
PE Pipe 110mm Ø 2.7-10.0mm wall thickness	110mm FIREPRO® Pipe Collar CE	
PE Pipe 125mm Ø 3.1mm wall thickness	125mm FIREPRO® Pipe Collar CE	40mm (W) x 12mm (T)
PE Pipe 140mm Ø 3.9-5.8mm wall thickness	140mm FIREPRO® Pipe Collar CE	
PE Pipe 160mm Ø 4.9-9.5mm wall thickness	160mm FIREPRO® Pipe Collar CE	

**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the floor.
- Max. Aperture size 750mm wide x 1100mm long
- First service support 400mm from unexposed face (top side)

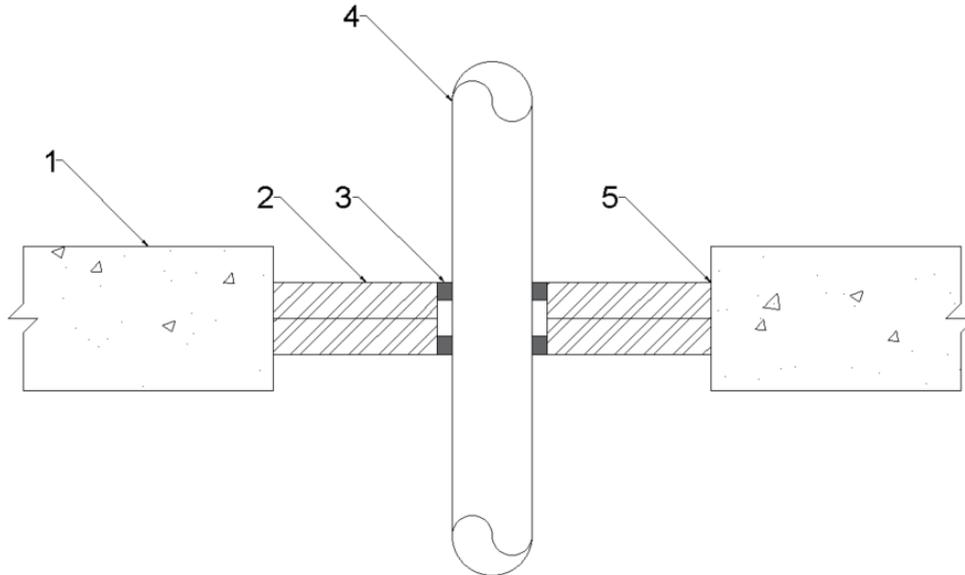


Service(s)	FIREPRO® High Expansion Intumescent Sealant	Classification
Pipe diameters as below	20mm annulus, 25mm deep both faces of the FIREPRO® Ablative Coated Batt	See graphs below



**Construction details:**

- Double layer of FIREPRO® Ablative Coated Batt (50mm) installed internally within the floor.
- Max. Aperture size 1000mm wide x 1500mm long
- First service support 400mm from unexposed face (top side)



Service(s)	FIREPRO® High Expansion Intumescent Sealant	Classification
Pipe diameters as below	20mm annulus, 25mm deep both faces of the FIREPRO® Ablative Coated Batt	See graphs below

