

UL-EU CERTIFICATE

Certificate No. UL-EU-01105-CPR
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Date of Issue 2018-12-19
Revised 2021-07-05

Certificate Holder Etex Building Performance Limited
Gordano House
Marsh Lane
Easton-in-Gordano
Bristol
BS20 0NE

Manufacturer A/021

Certified Product Type Fire Stop – Coated Board
Product Trade Name PROMASEAL® Fire Barrier
Trademark N/A
Rating/Classification See Appendix

Harmonised Technical Specifications ETAG 026-2 / EN 13501-2 / EN 13501-3
Expiry date 2028-12-18



A handwritten signature in purple ink, appearing to read 'Chris Miles', is located in the lower-left quadrant of the page.

Authorized Certification Decision Maker
Chris Miles

This is to certify that representative samples of the Certified Product listed above have been investigated by Underwriters Laboratories to the Standard(s) indicated on this Certificate, in accordance with the UL Global Services Agreement and the UL-EU Mark Service Terms and Conditions ("Agreement"). The Certificate Holder is entitled to use the UL-EU Mark for the Certified Product listed on the certificate and manufactured at the production site(s) listed, in accordance with the terms of the Agreement. Only those products bearing the UL-EU Mark for Europe should be considered as being covered by UL's UL-EU Mark Service. This Certificate shall remain valid through the Expiration date, unless a Standard identified on this Certificate is amended or withdrawn prior to that date or there is a non-compliance with the Agreement.



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This certificate relates to the use of PROMASEAL® Fire Barrier for fire stopping where services penetrate floors and walls. The detailed scope is given in pages 3 to 156 of this Certificate. This shows the thickness and acceptable dimensions, substrates and orientations required to provide fire resistance periods of up to 120 minutes (EI 120).

The product is certificated on the basis of:

- i) Inspection and surveillance of factory production control by UL
- ii) Fire resistance test data in accordance with 1366-3: 2009 & EN 1366-1: 2000
- iii) Classification in accordance with EN 13501-2 & EN 13501-3
- iv) Durability and Servicability as defined in ETAG 026-2

The durability class of PROMASEAL® Fire Barrier is Z₁ - intended for use at internal conditions with high humidity, excluding temperatures below 0°C

Fire resisting & smoke extraction ducts penetrating the PROMASEAL® Fire Barrier shall be classified (EN13501-3/4) for the required performance period, in addition to the details given on page 156.



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| Product-type: Coated board | | Intended use: Penetration Seal |
|--|--|---|
| Basic requirement for construction work | Basic Requirement | Basic requirement for construction work |
| BWR 1 Mechanical resistance and stability | | |
| - | None | - |
| BWR 2 Safety in case of fire | | |
| EN 13501-1 | Reaction to fire | Class E |
| EN 13501-2 | Resistance to fire | See pages 7 to 156 |
| BWR 3 Hygiene, health and environment | | |
| EN 1026:2000 | Air permeability (material property) | See page 4 |
| ETAG 026-3, Annex C | Water permeability (material property) | No performance determined |
| Declaration of manufacturer | Release of dangerous substances | Declaration of manufacturer |
| BWR 4 Safety in use | | |
| EOTA TR 001:2003 | Mechanical resistance and stability | No performance determined |
| EOTA TR 001:2003 | Resistance to impact/movement | No performance determined |
| EOTA TR 001:2003 ISO 11600 | Adhesion | No performance determined |
| BWR 5 Protection against noise | | |
| EN 10140-2/ EN ISO 717-1 | Airborne sound insulation | R _w (C;C _{tr})= 24(-2;-3) and See pages 5&6 |
| EN 10140-3/ EN ISO 717-2 | Impact sound insulation | No performance determined |
| BWR 6 Energy economy and heat retention | | |
| EN 12664, EN 12667 or EN 12939 | Thermal properties | No performance determined |
| EN ISO 12572 EN 12086 | Water vapour permeability | No performance determined |
| General aspects relating to fitness for use | | |
| ISO 8339: 2005, ISO 9046: 2004 & ISO 7389: 2003 | Durability and serviceability | Z ₁ |
| BWR 7 Sustainable use of natural resources | | |
| - | - | No performance determined |



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PROMASEAL® Fire Barrier: Air Permeability according to BS EN 1026

| Pressure (Pa) | Results under positive chamber pressure | | Results under negative chamber pressure | |
|---------------|---|--|---|--|
| | Leakage (m ³ /h) | Leakage (m ³ /m ² / h) | Leakage (m ³ /h) | Leakage (m ³ /m ² / 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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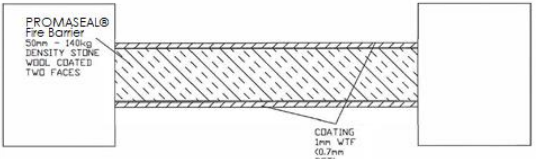
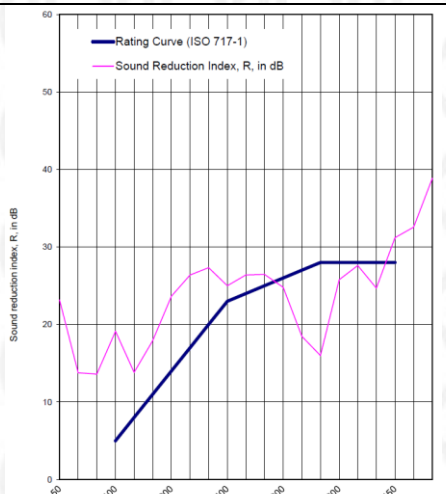
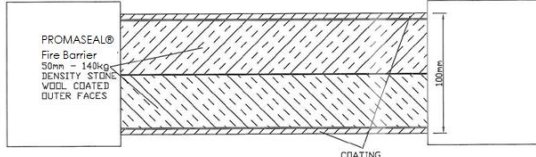
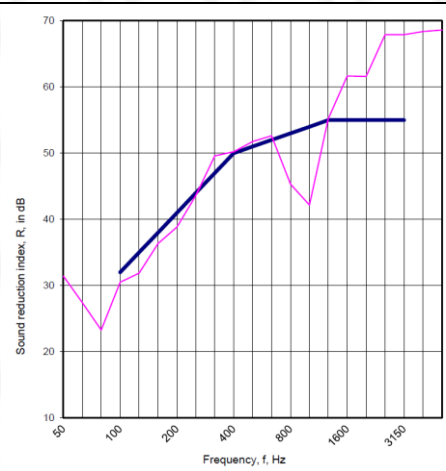
PROMASEAL® Fire Barrier: Acoustic performance according to BS EN ISO 10140-2:2010

| Configuration | $R_w(C; C_{tr})$ Specimen only, 1m ² | D_{new} Partition & Specimen, 14.2m ² |
|---------------|--|---|
| | <p>27 (0; -2)</p> | <p>37 (0; -2)</p> |
| | <p>48 (-3; 16)</p> | <p>58 (-3; 16)</p> |



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| PROMASEAL® Fire Barrier: Acoustic performance according to BS EN ISO 10140-2:2010 | | |
|---|---|--|
| Configuration | $R_w(C; C_{tr})$ Specimen only, 1m ² | D_{new} Partition & Specimen, 14.2m ² |
|  <p>PROMASEAL® Fire Barrier 50mm - 140kg DENSITY STONE VDFL COATED TWO FACES</p> <p>COATING 1mm VTF (0.7mm DFT)</p> | <p>24 (-2; -3)</p>  | <p>35 (-2; -4)</p> |
|  <p>PROMASEAL® Fire Barrier 50mm - 140kg DENSITY STONE VDFL COATED DUTER FACES</p> <p>COATING 1mm VTF (0.7mm DFT)</p> <p>100mm</p> | <p>41 (-2; -7)</p>  | <p>51 (-2; -7)</p> |



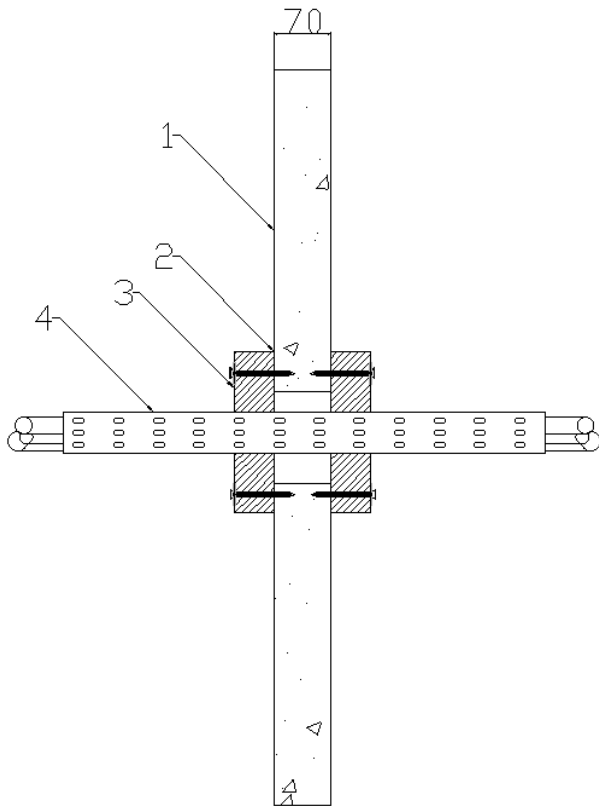
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Rigid Walls Minimum Thickness 70mm

Single Layer Pattress PROMASEAL® Fire Barrier 50 mm, Electrical Cables

Max Aperture 730mm Wide x 1200mm High



Key

1. Supporting Construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Service Penetration

Service(s)

500mm wide x 60mm deep steel cable basket containing 3 x type 'B' cable and 20 x bundle of telecoms cables

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

Classification

EI 90

¹Pattress installation of PROMASEAL® Fire Barrier. The Battres are installed in horizontal rows and fixed on all edges. Overlap of battres to substrate min 50mm. Battres mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centres

27-CP-F0855 Issue: 3.1

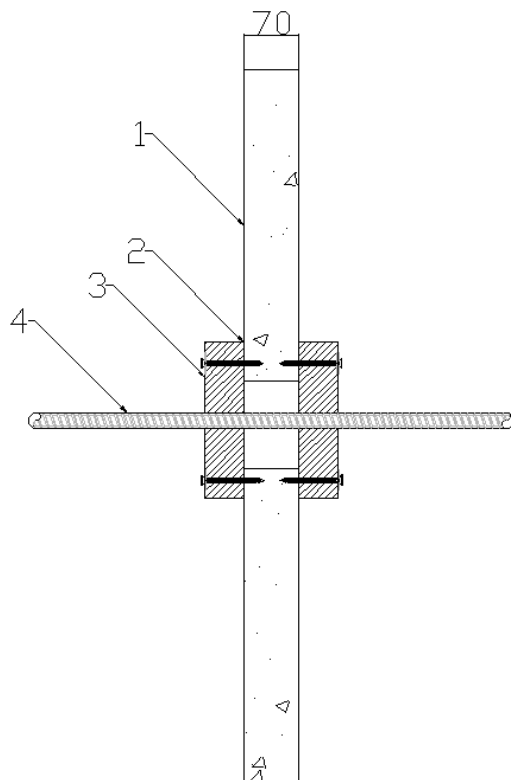


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Single Layer Pattress PROMASEAL® Fire Barrier 50mm, Electrical Cables and Conduits

Max Aperture 730mm Wide x 1200mm High



Key

1. Supporting Construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Service Penetration

| Service(s) | Classification |
|--|----------------|
| 20mm dia Adaptaflex SPL20 flexible conduit | EI 90 |
| 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 | E 90 EI 60 |

¹Pattress installation of PROMASEAL® Fire Barrier. 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

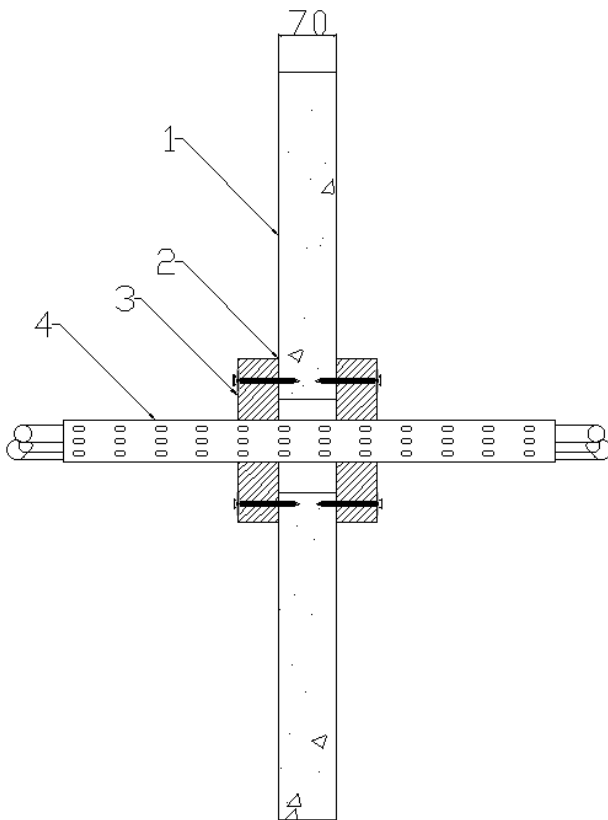


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Single Layer Pattress PROMASEAL® Fire Barrier 50mm, Electrical Cables

Max Aperture 2600mm Wide x 2600mm High



Key

1. Supporting Construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Service Penetration

Service(s)

500mm wide x 60mm deep steel cable basket containing 3 x type 'B' cable and 20 x bundle of telecoms cables

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

Classification

EI 60

¹Pattress installation of PROMASEAL® Fire Barrier. 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

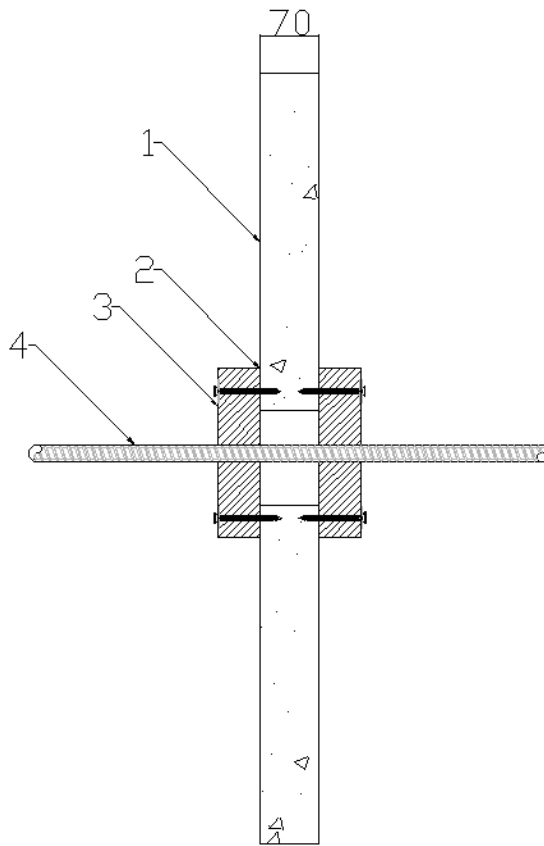


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Single Layer Pattress PROMASEAL® Fire Barrier 50mm, Electrical Cables and Conduits

Max Aperture 2600mm Wide x 2600mm High



Key

1. Supporting Construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Service Penetration

| Service(s) | Classification |
|--|----------------|
| 20mm dia Adaptaflex SPL20 flexible conduit | EI 60 |
| 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 | EI 60 |

¹Pattress installation of PROMASEAL® Fire Barrier. 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



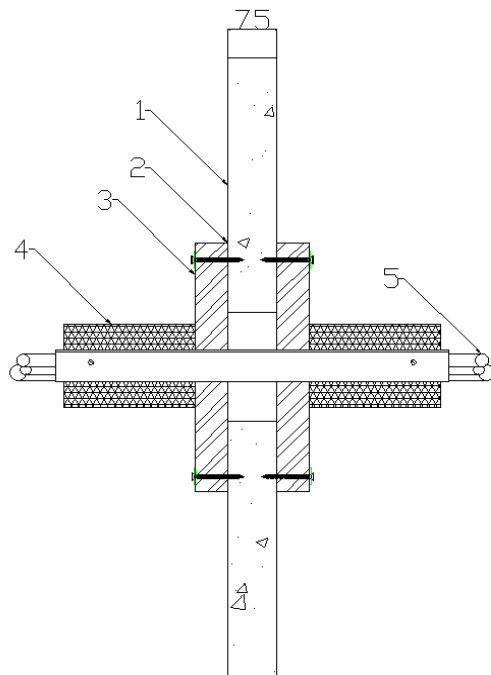
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Rigid Walls Minimum Thickness 75mm

Single Layer Pattress PROMASEAL® Fire Barrier 50mm, Electrical Cables and Cable Trunking

Max Aperture 2600mm Wide x 2600mm High



Key

1. Supporting Construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Insulation
5. Service Penetration

Service(s)

Classification

150mm x 150mm Insulated steel cable trunking, Stone Wool 40mm thick, 45kg/m³ (LI 400mm). PROMASEAL® Fire Pillows tightly fitted around the cables in the section of trunking within the depth of the partition

EI 60 U/U

Cables 1xB1, 1xC1, 1xG1, 1xG2

Cables 1xB1

Cables 1xC1

EI 60

Unsheathed electrical cables 0-24mm dia

¹Pattress installation of PROMASEAL® Fire Barrier. 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 centres

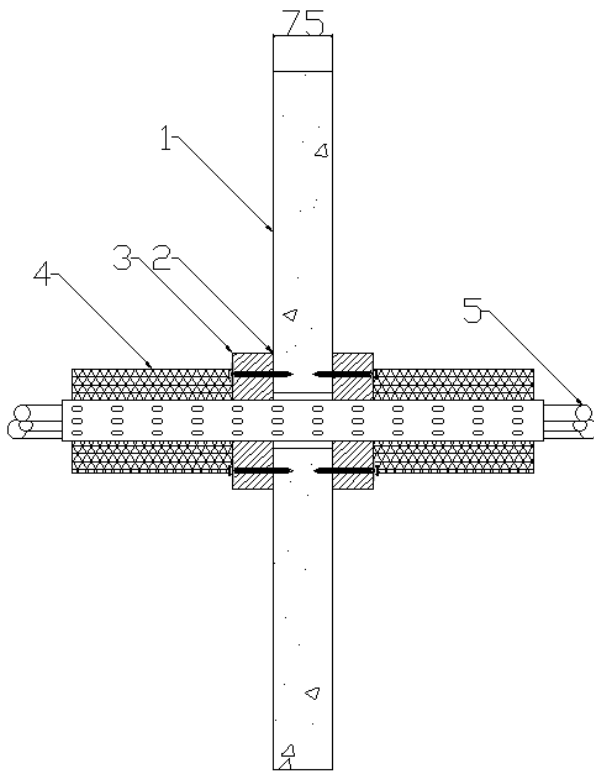


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Single Layer Pattress PROMASEAL® Fire Barrier 50mm, Electrical Cables and Cable Trunking

Max Aperture 2600mm Wide x 2600mm High



- Key**
1. Supporting Construction
 2. PROMASEAL® Intumescent Acrylic Sealant
 3. PROMASEAL® Fire Barrier
 4. Insulation
 5. Service Penetrations

| Service(s) | Classification |
|--|----------------|
| 50mm x 50mm Insulated steel cable trunking, Stone Wool 40mm thick, 45kg/m ³ (LI 400mm). PROMASEAL® Fire Pillow stightly fitted around the cables in the section of trunking within the depth of the partition | EI 60 U/U |
| Cables 1xA1, 1xA2, 1xA3 | EI 60 |
| Cables 1xA1 | |
| Cables 1xA2 | |
| Cables 1xA3 | |

¹Pattress installation of PROMASEAL® Fire Barrier. 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 centres



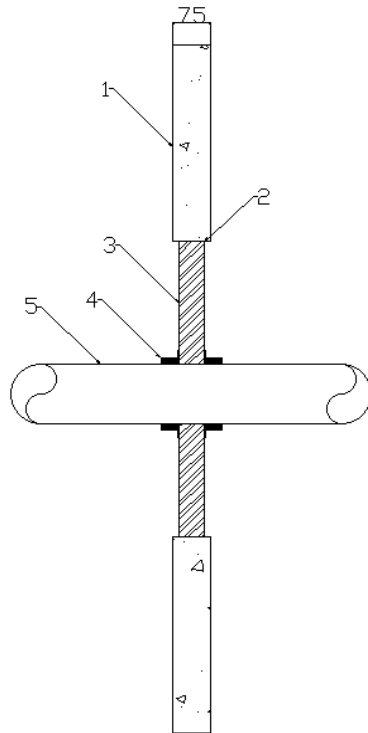
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Single Layer PROMASEAL® Fire Barrier 50mm, Plastic Pipes

Max Aperture 600mm Wide x 600mm High

(Penetrations 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 utilising 80mm long steel pig tail screw through to PROMASEAL® Fire Barrier



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Service Penetration

| Service(s) | PROMASEAL® Collar Ref | Classification |
|--|-----------------------|----------------|
| PVC Pipe 32mm Ø, 1.8mm wall thickness | 32mm | EI 60 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 | |

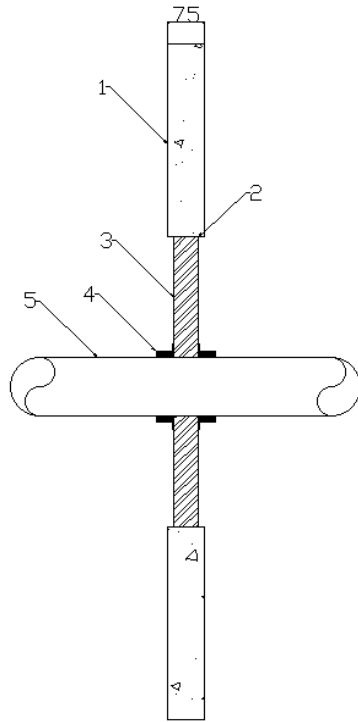


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Max Aperture 600mm Wide x 600mm High

(Penetrations 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 utilising 80mm long steel pig tail screw through to PROMASEAL® Fire Barrier



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Service Penetration

| Service(s) | PROMASEAL® Collar Ref | Classification |
|---|-----------------------|----------------|
| PE Pipe 32mm Ø, 2.9mm wall thickness | 32mm | EI 60 U/C |
| 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 | |

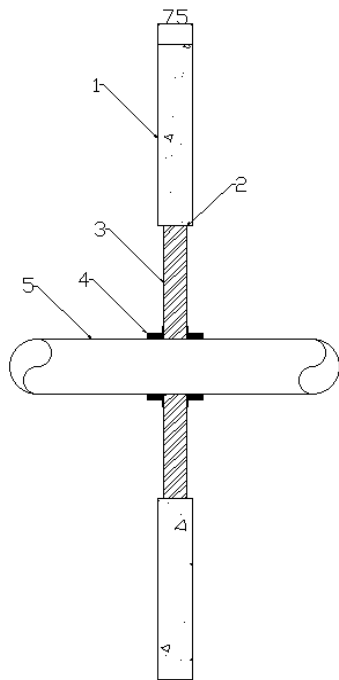


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Max Aperture 600mm Wide x 600mm High

(Penetrations 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 utilising 80mm long steel pig tail screw through to PROMASEAL® Fire Barrier



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Service Penetration

| Service(s) | PROMASEAL® Collar Ref | Classification |
|--|-----------------------|----------------|
| PP Pipe 32mm Ø, 2.9mm wall thickness | 32mm | EI 60 U/C |
| 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 | |



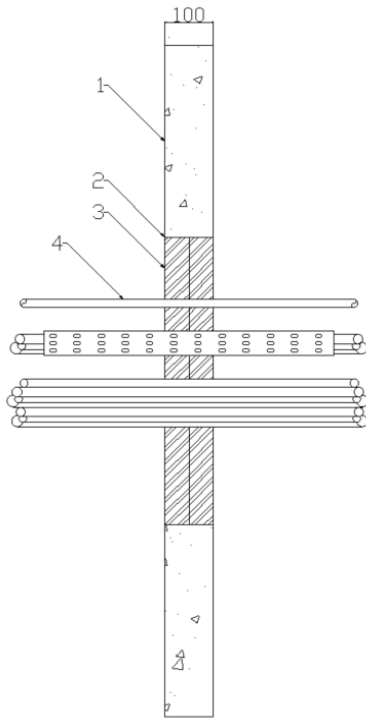
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Rigid Walls Minimum Thickness 100mm

Double Layer PROMASEAL® Fire Barrier 50mm, Electrical Cables and Conduits

Max Aperture 2600mm Wide x 2600mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Service Penetration

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

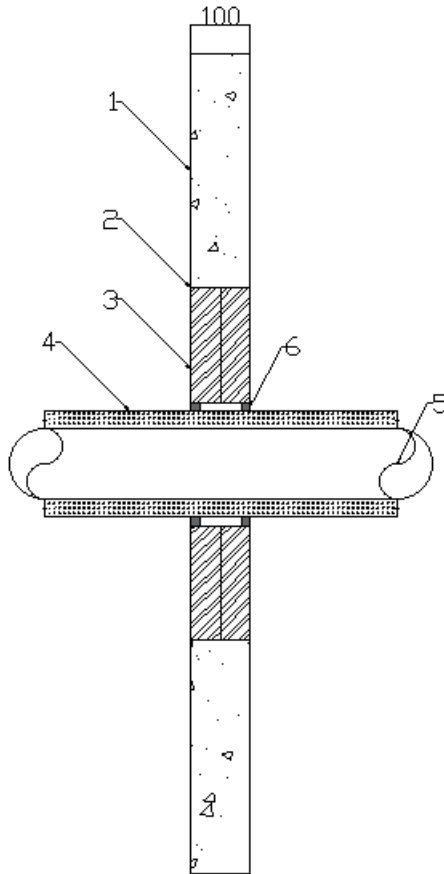


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Double Layer PROMASEAL® Fire Barrier 50mm, Insulated Metallic Pipes

Max Aperture 730mm Wide x 1200mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Insulation
5. Penetration Service
6. PROMASEAL® HPEX Sealant

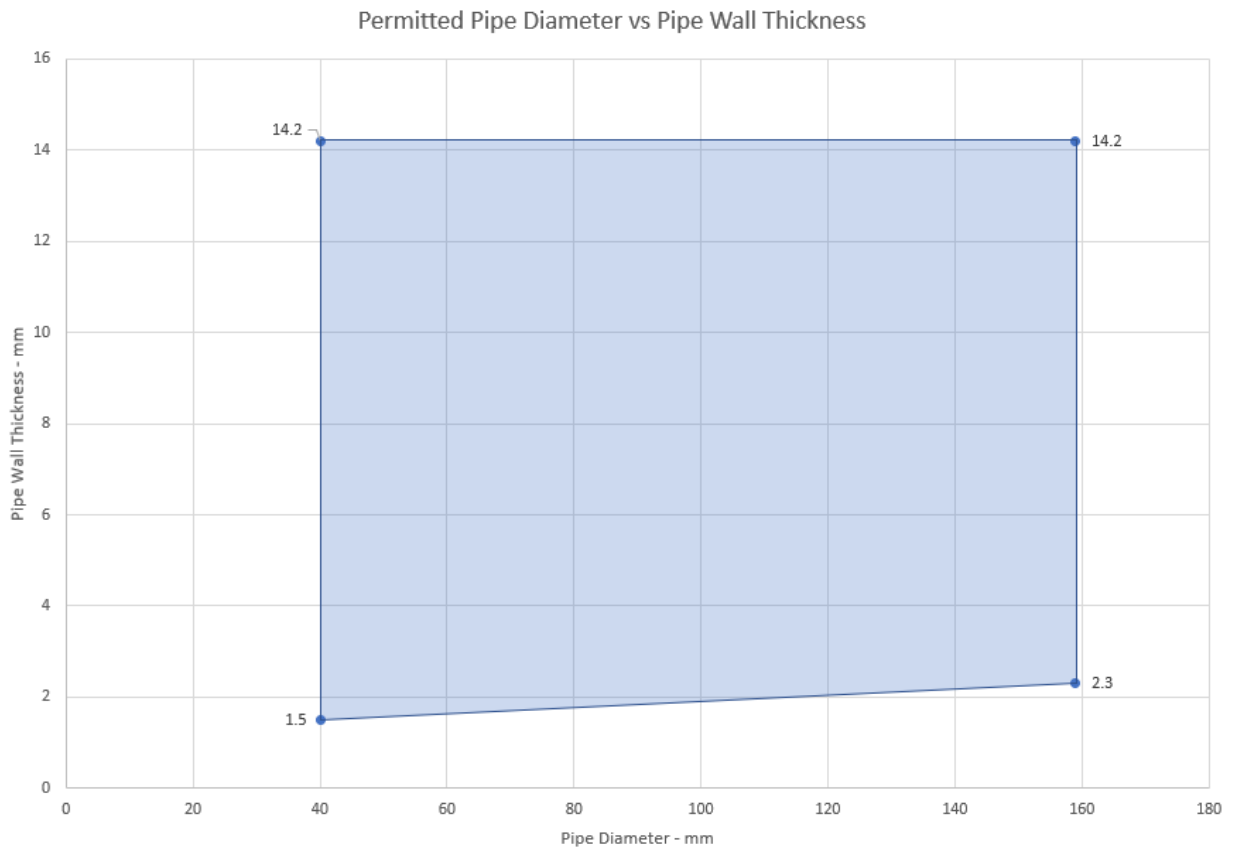
| Service(s) | Classification |
|---|-----------------------|
| ¹ Single copper or mild steel pipe 40mm diameter and 1.5 – 14.2 mm wall with sustained/continuous 20mm thick foil faced glass wool insulation (min 80Kg/m ³) | E 90 U/C EI 60 U/C |
| ¹ Single copper or mild steel pipe 40-159mm diameter and 1.5 – 14.2 mm wall (see graph below) with sustained/continuous 30mm thick foil faced glass wool insulation (min 80Kg/m ³) | EI 60 U/C |

¹15mm deep x 15mm wide annulus PROMASEAL® HPEX Sealant to both faces of the pipe



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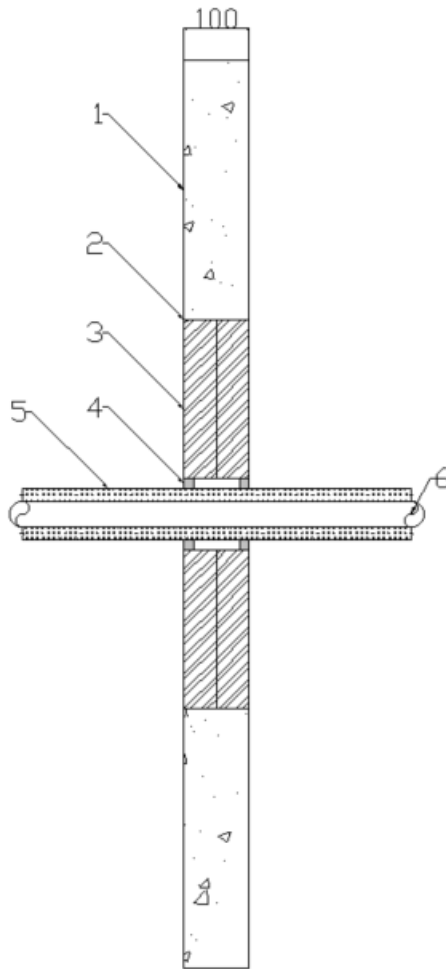
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Max Aperture 2600mm Wide x 2600mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® HPEX Sealant
5. Insulation
6. Penetration Service

Service(s)

Classification

¹Single 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/m³)

EI 60 U/C

¹Single copper or mild steel pipe 40-159mm diameter and 1.5 – 14.2 mm wall (see graph below) with sustained/continuous 30mm thick foil faced glass wool insulation (min 80Kg/m³)

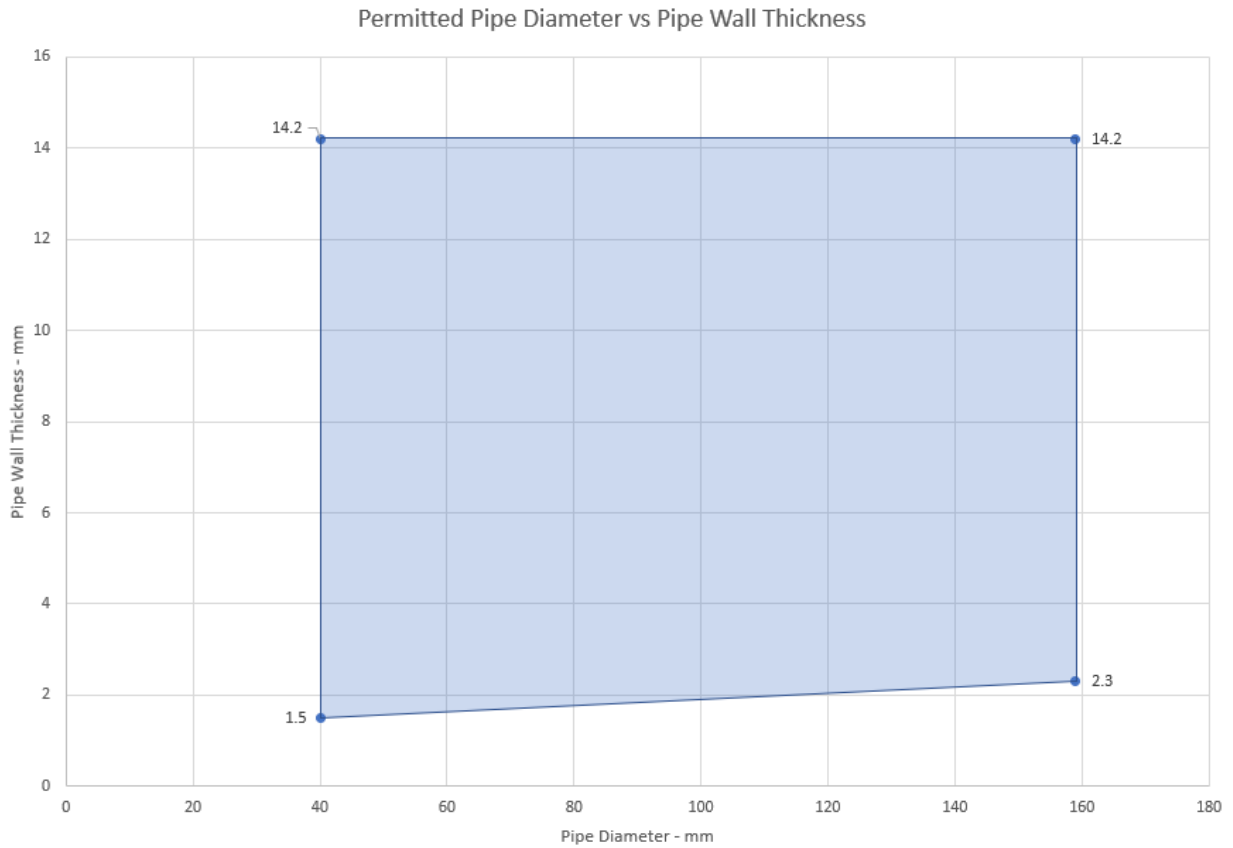
EI 60 U/C

¹15mm deep x 15mm wide annulus PROMASEAL® HPEX Sealant to both faces of the pipe



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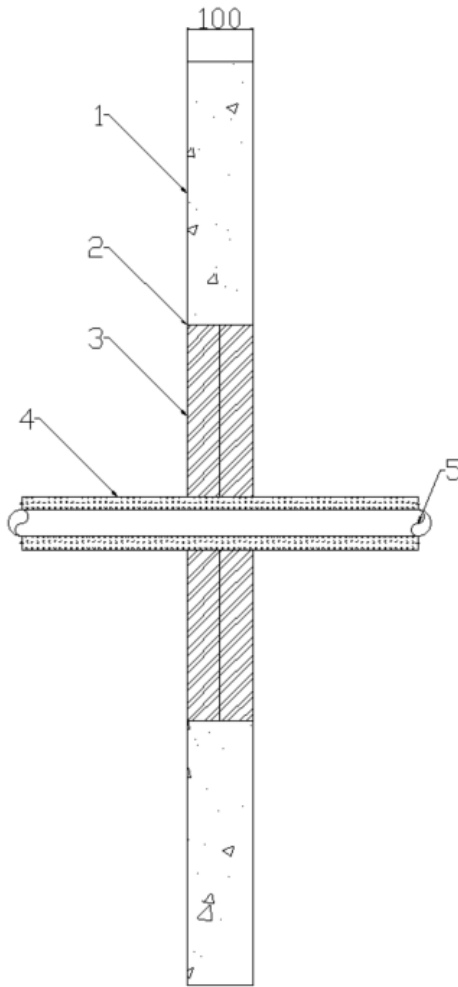
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Max Aperture 730mm Wide x 1200mm High



Key

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3. PROMASEAL® Fire Barrier
4. Insulation
5. Penetration Service

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/m³ (C/S)

E 120 C/U
 EI 45 C/U

Steel or Copper Pipe 42mm Ø, 1mm – 14.2mm wall thickness. 25mm thick foil faced glassfibre insulation min. 30kg/m³ (C/S)

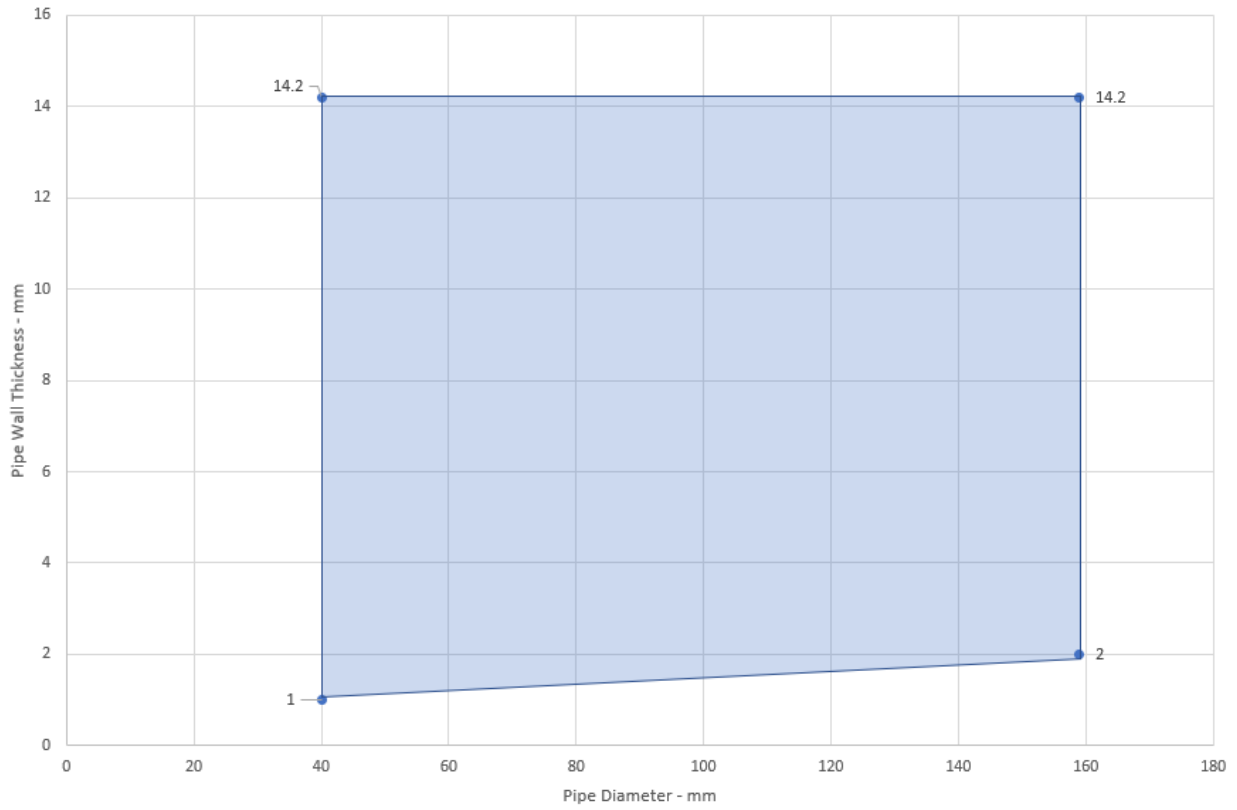
E 120 C/U
 EI 60 C/U



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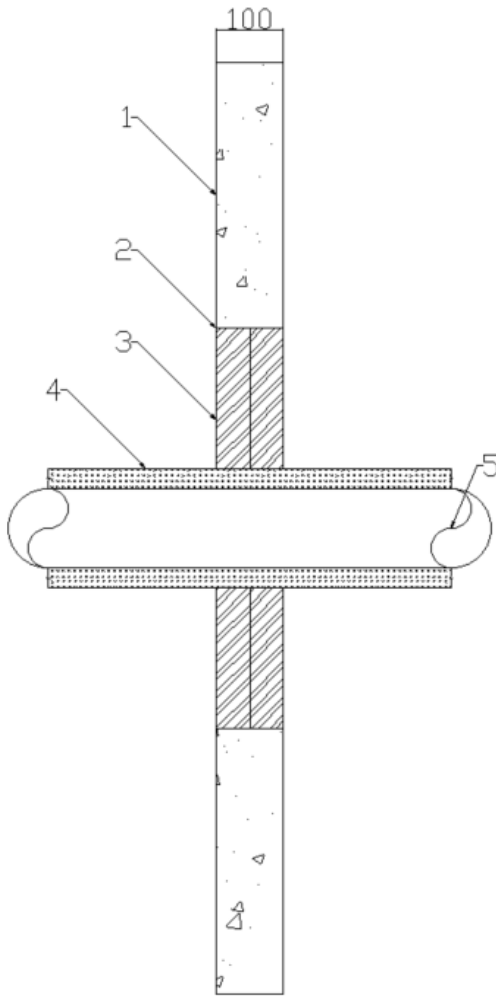
Permitted Pipe Diameter vs Pipe Wall Thickness



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Max Aperture 2600mm Wide x 2600mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Insulation
5. Penetration Service

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/m³ (C/S)

E 60 C/U
 EI 45 C/U

Steel or Copper Pipe 42mm Ø, 1mm – 14.2mm wall thickness. 25mm thick foil faced glassfibre insulation min. 30kg/m³ (C/S)

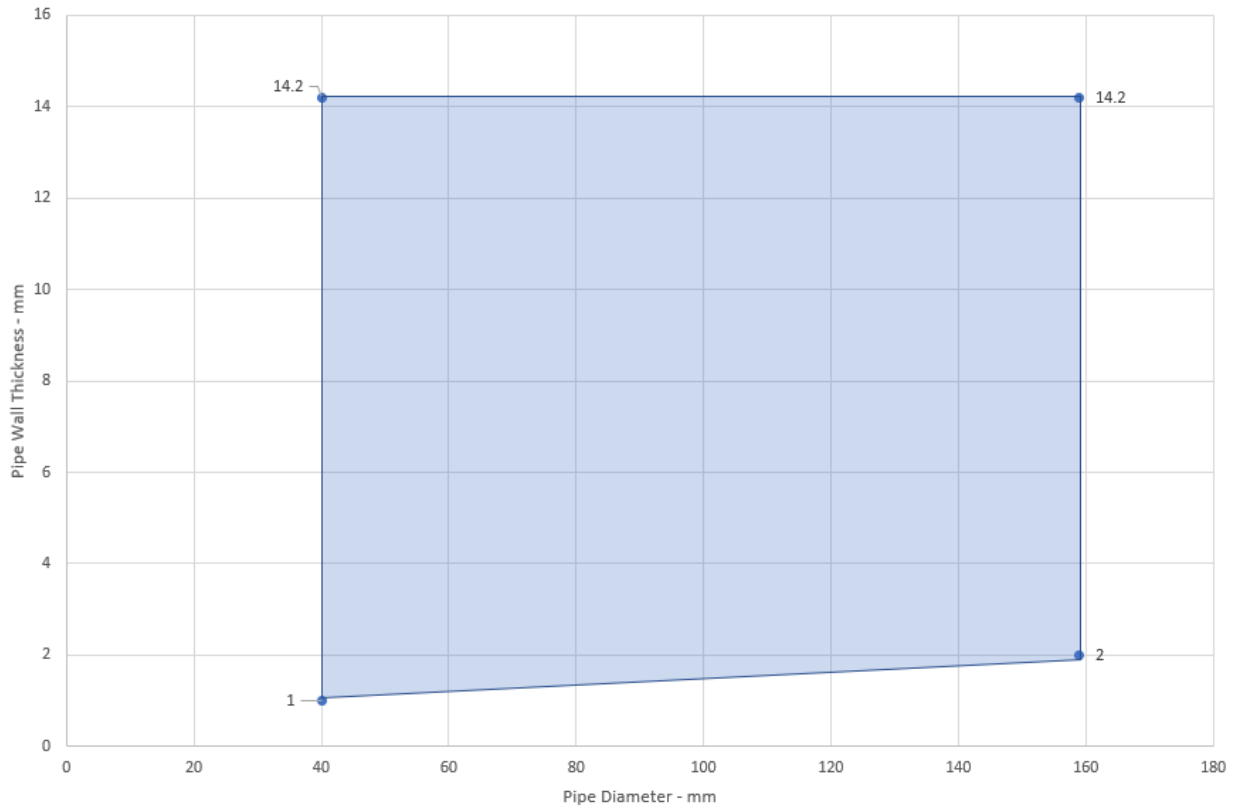
E 60 C/U
 EI 60 C/U



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Permitted Pipe Diameter vs Pipe Wall Thickness

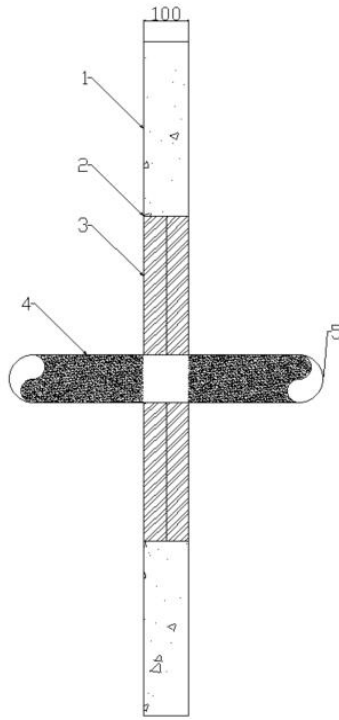


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Max Aperture 730mm Wide x 1200mm High

(Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal)



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Fire Barrier Coating
5. Penetration Service

Service(s)

Classification

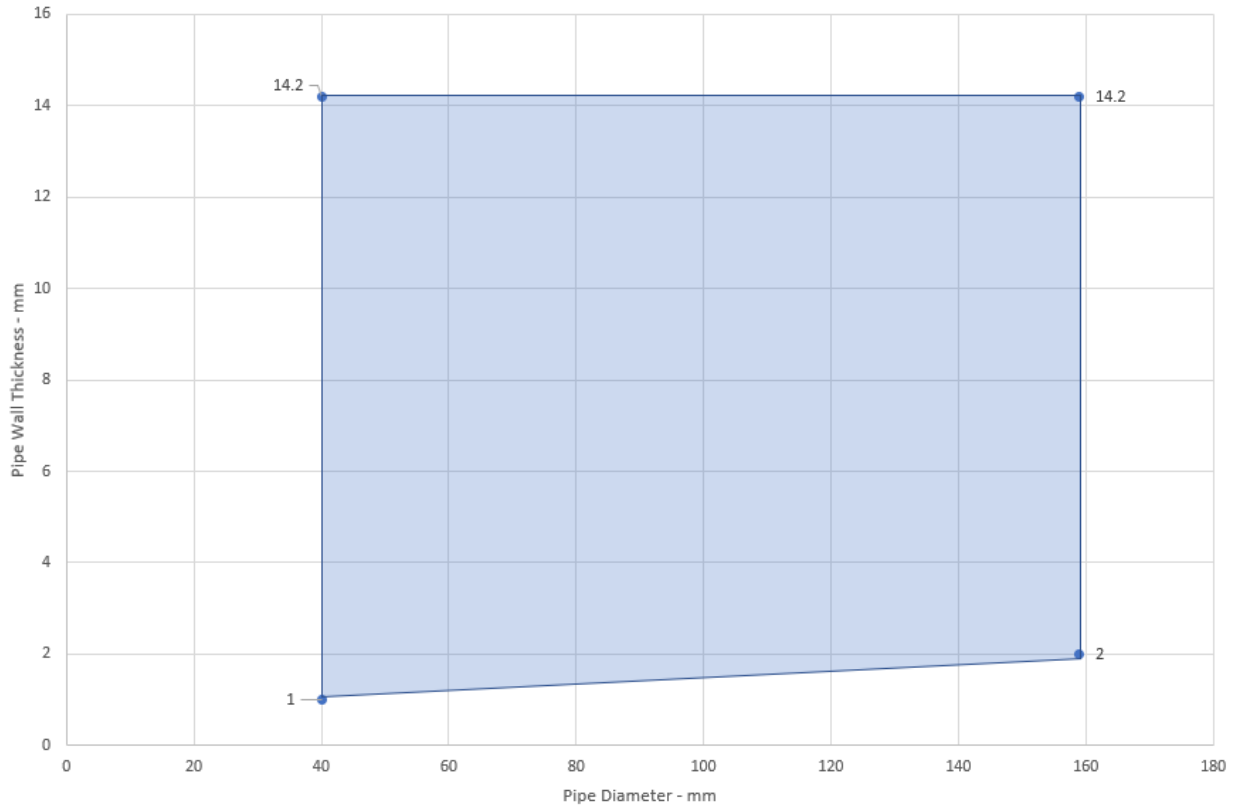
| | |
|---|------------------------|
| Steel or Copper Pipe 108mm Ø, 1.5mm – 14.2mm wall thickness, 50mm thick foil faced stonewool insulation min. 100kg/m ³ (L/I 500mm) | E 120 C/U EI 45 C/U |
| Steel or Copper Pipe 108mm Ø, 1.5mm – 14.2mm wall thickness, 50mm thick foil faced stonewool insulation min. 100kg/m ³ (C/I) | E 120 C/U EI 60 C/U |
| 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 ³ (L/I 400mm) | EI 45 C/U |
| Steel 42-324mm Ø, 16mm wall thickness. 40mm thick foil faced stonewool insulation min. 40kg/m ³ (L/I 400mm) | EI 45 C/U |
| Steel or Copper Pipe 42mm Ø, 1.0mm – 14.2mm wall thickness, PROMASEAL® Fire Barrier Coating along the penetration 2mm DFT (L/I 300mm) | E 120 C/U EI 45 C/U |
| Steel or Copper Pipe 42-159mm Ø, 1.0mm – 14.2mm wall thickness (see graph below), PROMASEAL® Fire Barrier Coating along the penetration 2mm DFT (L/I 300mm) | E 120 C/U EI 20 C/U |
| Steel 42-324mm Ø, 16mm wall thickness. 14.2mm wall thickness PROMASEAL® Fire Barrier Coating along the penetration 2mm DFT (L/I 300mm) | E 120 C/U EI 45 C/U |



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Permitted Pipe Diameter vs Pipe Wall Thickness

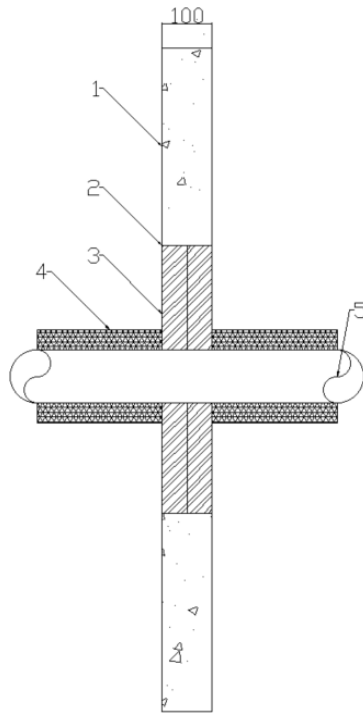


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Max Aperture 2600mm Wide x 2600mm High

(Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal)



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Insulation
5. Penetration Service

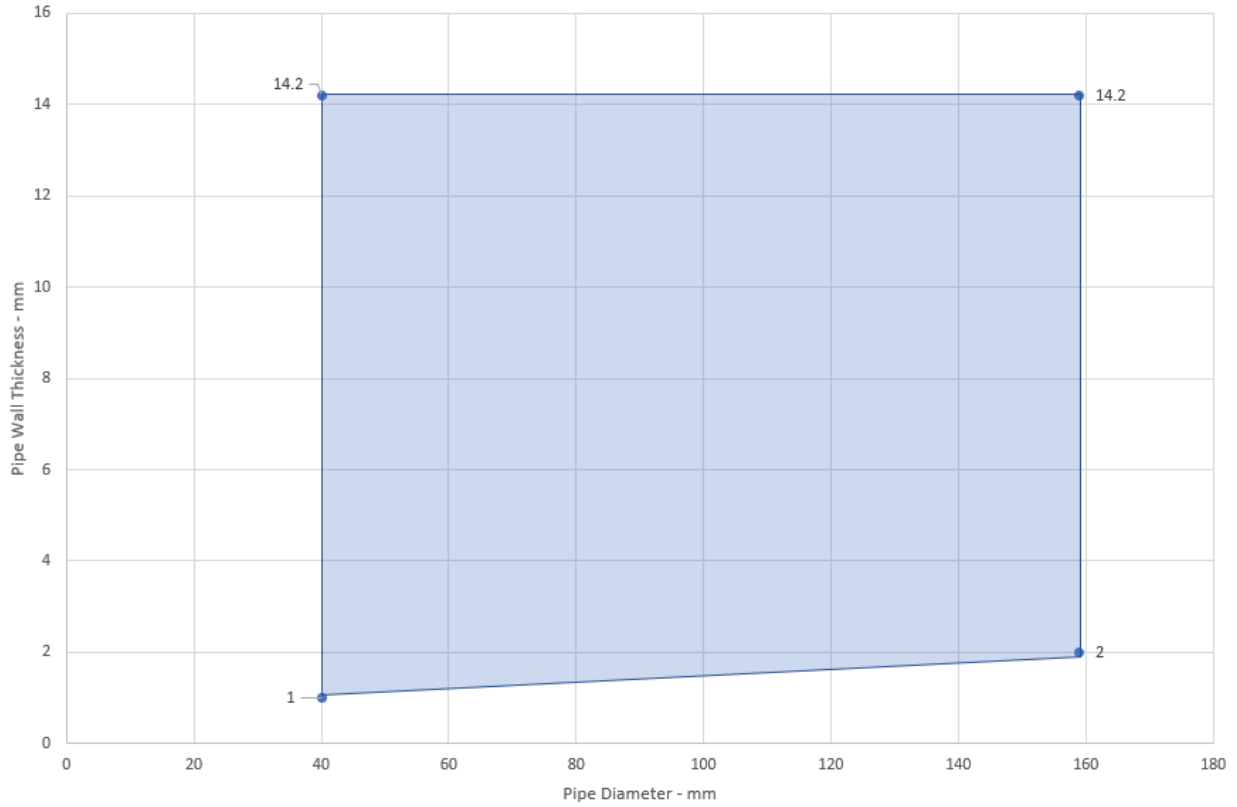
| Service(s) | Classification |
|---|-----------------------|
| Steel or Copper Pipe 108mm Ø, 1.5mm – 14.2mm wall thickness 50mm thick foil faced stonewool insulation min. 100kg/m ³ (L/I 500mm) | E 60 C/U EI 45 C/U |
| Steel or Copper Pipe 108mm Ø, 1.5mm – 14.2mm wall thickness, 50mm thick foil faced stonewool insulation min. 100kg/m ³ (C/I) | EI 60 C/U |
| 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 ³ (L/I 400mm) | EI 45 C/U |
| Steel 42-324mm Ø, 16mm wall thickness. 40mm thick foil faced stonewool insulation min. 40kg/m ³ (L/I 400mm) | EI 45 C/U |
| Steel or Copper Pipe 42mm Ø, 1.0mm – 14.2mm wall thickness, PROMASEAL® Fire Barrier Coating along the penetration 2mm DFT (L/I 300mm) | E 60 C/U EI 45 C/U |
| Steel or Copper Pipe 42-159mm Ø, 1.2mm – 14.2mm wall thickness (see graph below), PROMASEAL® Fire Barrier Coating along the penetration 2mm DFT (L/I 300mm) | E 60 C/U EI 20 C/U |
| Steel 42-324mm Ø, 16mm wall thickness. 14.2mm wall thickness PROMASEAL® Fire Barrier Coating along the penetration 2mm DFT (L/I 400mm) | E 60 C/U EI 45 C/U |



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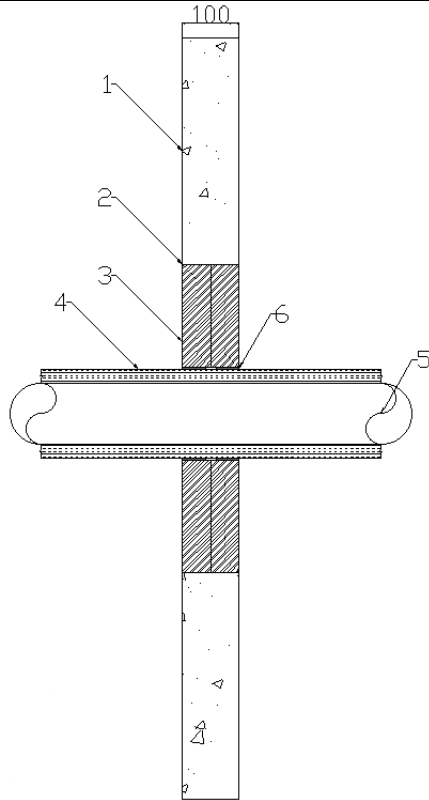
Permitted Pipe Diameter vs Pipe Wall Thickness



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Max Aperture 750mm Wide x 1200mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Insulation
5. Penetration Service
6. PROMASEAL® Wrap

| Service(s) | Classification |
|--|------------------------|
| ¹ Steel or Copper Pipe 42-159mm Ø, 1.2mm – 14.2mm wall thickness. 13-25mm thick K Flex ST Insulation ² (C/S) | E 120 C/U EI 60 C/U |
| ¹ Steel or Copper Pipe 42mm Ø, 1 – 14.2mm wall thickness. 25-13mm thick K Flex ST insulation ² (C/S) | E 120 C/U EI 90 C/U |
| ¹ Steel or Copper Pipe 42-108mm Ø, 1.2 – 14.2mm wall thickness. 25-40mm thick Kingspan Kooltherm FM insulation ³ (C/S) | E 120 C/U EI 60 C/U |
| ¹ Steel or Copper Pipe 42mm Ø, 1–14.2mm wall thickness. 25-40mm thick Kingspan Kooltherm FM insulation ³ (C/S) | E 120 C/U EI 90 C/U |
| ¹ Steel or Copper Pipe 42mm Ø, 1.0–14.2mm wall thickness. 50mm thick glassfibre insulation (C/S) | E 120 C/U EI 90 C/U |

¹2 x 2mm thick layers of PROMASEAL® Wrap installed both sides of the PROMASEAL® Fire Barrier

²Or equivalent elastomeric pipe insulation classified BL – s2, d0 or better to EN 13501-1

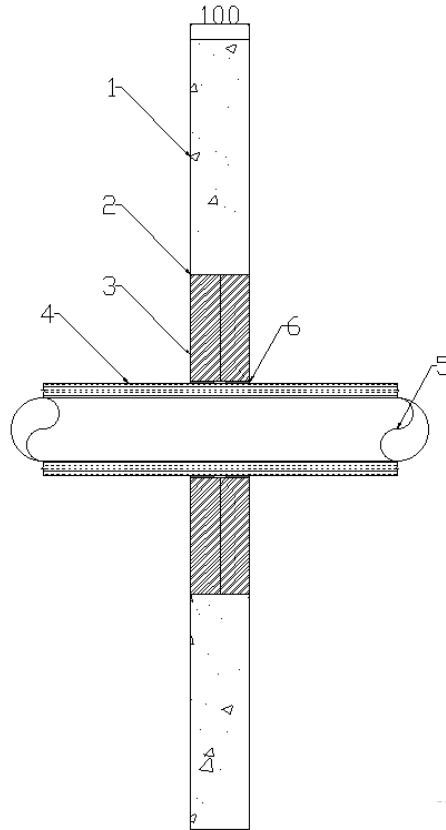
³Or equivalent Phenolic foam pipe insulation classified BL – s1, d0 or better to EN 13501-1



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Max Aperture 2600mm Wide x 2600mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Insulation
5. Penetration Service
6. PROMASEAL® Wrap

Service(s)

Classification

| Service(s) | Classification |
|--|----------------|
| ¹ Steel or Copper Pipe 42-159mm Ø, 1.2mm – 14.2mm wall thickness. 13-25mm thick K Flex ST Insulation ² (C/S) | EI 60 C/U |
| ¹ Steel or Copper Pipe 42mm Ø, 1 – 14.2mm wall thickness. 25-13mm thick K Flex ST insulation ² (C/S) | EI 60 C/U |
| ¹ Steel or Copper Pipe 42-108mm Ø, 1.2 – 14.2mm wall thickness. 25-40mm thick Kingspan Kooltherm FM insulation ³ (C/S) | EI 60 C/U |
| ¹ Steel or Copper Pipe 42mm Ø, 1–14.2mm wall thickness. 25-40mm thick Kingspan Kooltherm FM insulation ³ (C/S) | EI 60 C/U |
| ¹ Steel or Copper Pipe 42mm Ø, 1.02–14.2mm wall thickness. 50mm thick glassfibre insulation (C/S) | EI 60 C/U |

¹2 x 2mm thick layers of PROMASEAL® Wrap installed both sides of the PROMASEAL® Fire Barrier

²Or equivalent elastomeric pipe insulation classified BL – s2, d0 or better to EN 13501-1

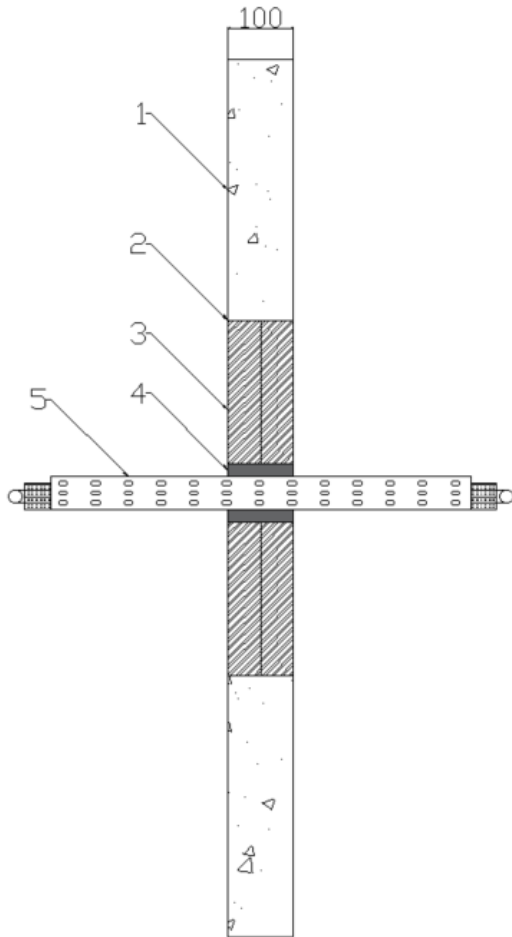
³Or equivalent Phenolic foam pipe insulation classified BL – s1, d0 or better to EN 13501-1



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Max Aperture 730mm Wide x 1200mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® HPEX Sealant
5. Penetration Service

| Service(s) | Classification |
|---|----------------|
| ¹ 6 off Steel or Copper Pipe 22mm Ø, 0.9mm – 14.2mm wall thickness. 19mm thick Armaflex ² (L/S 400mm) | EI 90 C/U |
| ¹ 500mm steel cable tray | E 90 EI 15 |

¹PROMASEAL® HPEX Sealant 20mm annulus full 50mm depth of the PROMASEAL® Fire Barrier

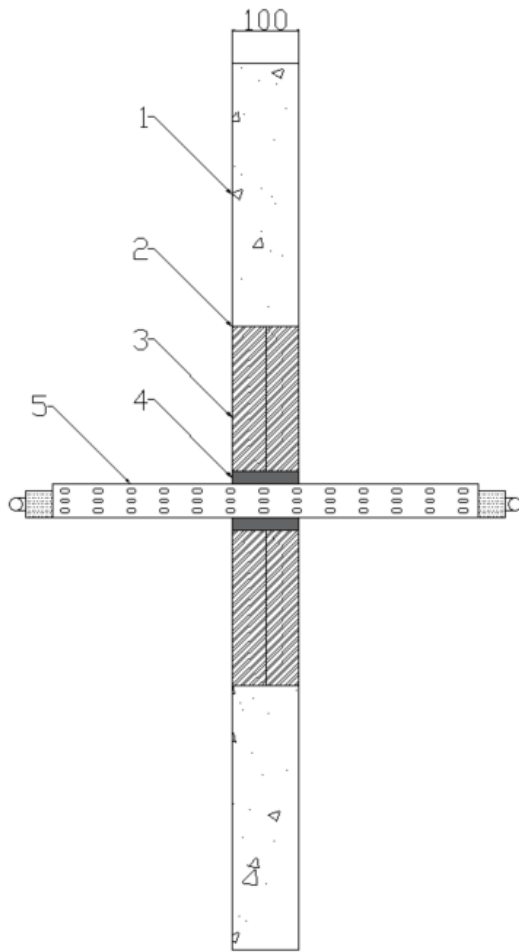
²Or equivalent elastomeric pipe insulation classified BL – s2, d0 or better to EN 13501-1



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Max Aperture 2600mm Wide x 2600mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® HPEX Sealant
5. Penetration Service

Service(s)

Classification

¹ 6 off Steel or Copper Pipe 22mm Ø, 0.9mm – 14.2mm wall thickness. 19mm thick Armaflex² (L/S 400mm)

EI 60 C/U

¹500mm steel cable tray

E 60
EI 15

¹PROMASEAL® HPEX Sealant 20mm annulus full 50mm depth of the PROMASEAL® Fire Barrier

²Or equivalent elastomeric pipe insulation classified BL – s2, d0 or better to EN 13501-1



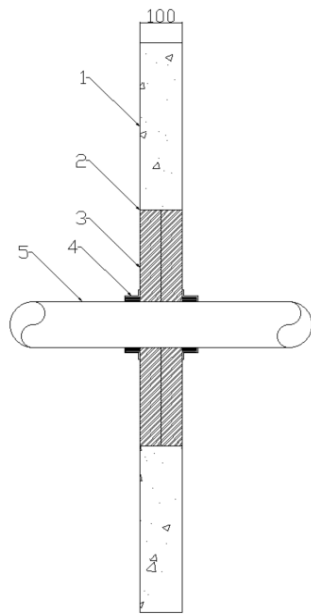
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Double Layer PROMASEAL® Fire Barrier 50mm, Plastic Pipes

Max Aperture 730mm Wide x 1200mm High

(Penetrations 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 utilising 80mm long steel pig tail screw through to PROMASEAL® Fire Barrier



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Penetration Service

| Service(s) | PROMASEAL® Collar 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 | |

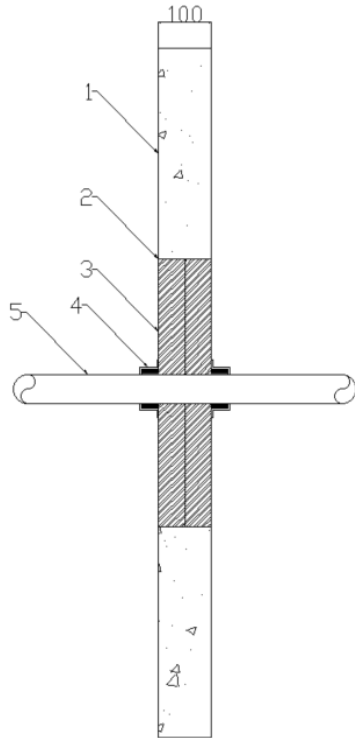


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Max Aperture 2600mm Wide x 2600mm High

(Penetrations 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 utilising 80mm long steel pig tail screw through to PROMASEAL® Fire Barrier



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Penetration Service

| Service(s) | PROMASEAL® Collar Ref | Classification |
|--|-----------------------|----------------|
| PVC Pipe 32mm Ø, 1.8mm wall thickness | 32mm | EI 60 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 | |

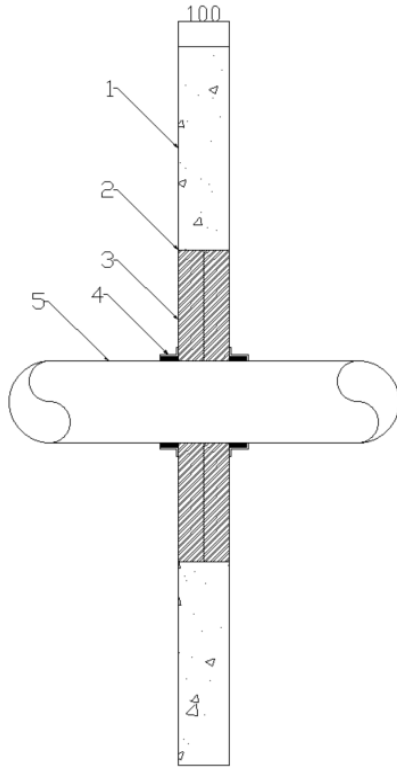


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Max Aperture 730mm Wide x 1200mm High

(Penetrations 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 utilising 80mm long steel pig tail screw through to PROMASEAL® Fire Barrier



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Penetration Service

| Service(s) | PROMASEAL® Collar Ref | Classification |
|--|-----------------------|----------------|
| PP Pipe 32mm Ø, 2.9mm wall thickness | 32mm | EI 120 U/C |
| 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 | |

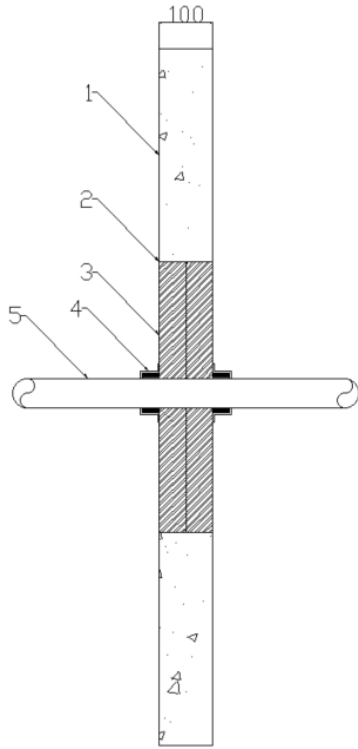


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Max Aperture 2600mm Wide x 2600mm High

(Penetrations 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 utilising 80mm long steel pig tail screw through to PROMASEAL® Fire Barrier



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Penetration Service

| Service(s) | PROMASEAL® Collar Ref | Classification |
|--|-----------------------|----------------|
| PP Pipe 32mm Ø, 2.9mm wall thickness | 32mm | EI 60 U/C |
| 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 | |

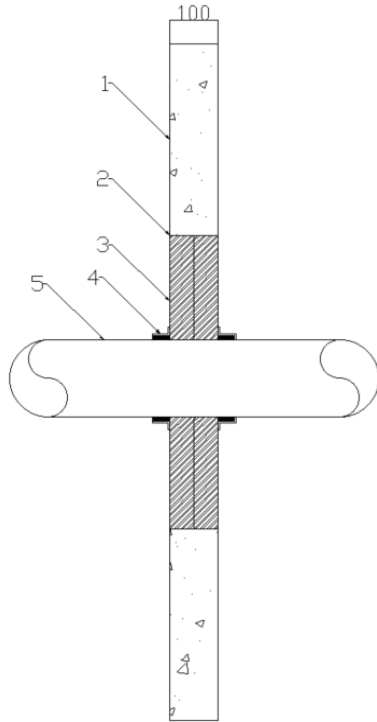


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Max Aperture 730mm Wide x 1200mm High

(Penetrations 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 utilising 80mm long steel pig tail screw through to PROMASEAL® Fire Barrier



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Penetration Service

| Service(s) | PROMASEAL® Collar Ref | Classification |
|---|-----------------------|----------------|
| PE Pipe 32mm Ø, 2.9mm wall thickness | 32mm | EI 120 U/C |
| 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 | |

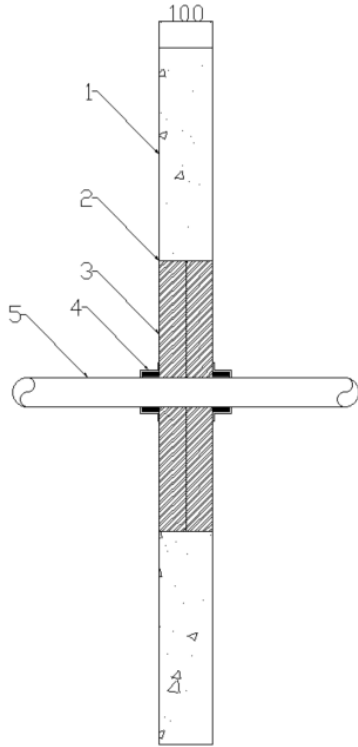


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Max Aperture 2600mm Wide x 2600mm High

(Penetrations 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 utilising 80mm long steel pig tail screw through to PROMASEAL® Fire Barrier



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Penetration Service

| Service(s) | PROMASEAL® Collar Ref | Classification |
|---|-----------------------|----------------|
| PE Pipe 32mm Ø, 2.9mm wall thickness | 32mm | EI 60 U/C |
| 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 | |



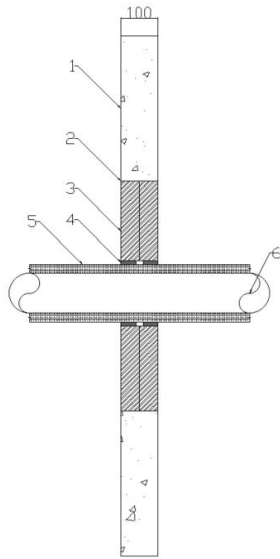
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Double Layer PROMASEAL® Fire Barrier 50mm, Insulated Plastic Pipes

Max Aperture 730mm Wide x 1200mm High

(Penetrations positioned as per option 1 or 2 below, 100mm distance between services and 50mm to edge of seal)



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Wrap
5. Insulation
6. Penetration Service

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

¹PROMASEAL® Wrap secured internally within both faces of the PROMASEAL® Fire Barrier

²Or equivalent elastomeric pipe insulation classified BL – s2, d0 or better to EN 13501-1

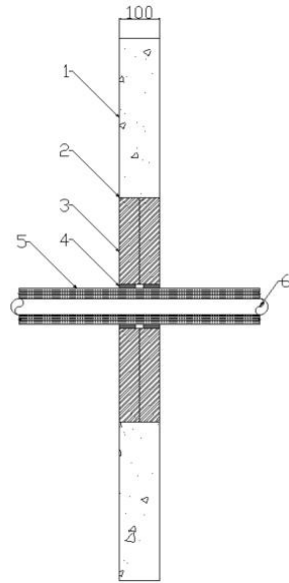
³Or equivalent Phenolic foam pipe insulation classified BL – s1, d0 or better to EN 13501-1



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Max Aperture 2600mm Wide x 2600mm High
 (Penetrations positioned as per option 1 or 2 below, 100mm distance between services and 50mm to edge of seal)



- Key**
1. Supporting construction
 2. PROMASEAL® Intumescent Acrylic Sealant
 3. PROMASEAL® Fire Barrier
 4. PROMASEAL® Wrap
 5. Insulation
 6. Penetration Service

| Service(s) | PROMASEAL® Wrap Ref | Classification |
|---|---------------------|----------------|
| PVC Pipe 40mm Ø, 1.9mm wall thickness. 25 mm thick Kingspan Kooltherm FM ³ insulation (C/S) | 3 x 2mm thickness | EI 60 U/C |
| PVC Pipe 40mm Ø, 3mm wall thickness. 15 mm thick Kingspan Kooltherm FM ³ insulation (C/S) | 3 x 2mm thickness | |
| PVC Pipe 110mm Ø, 4.2mm wall thickness. 25 mm thick Kingspan Kooltherm FM ³ insulation (C/S) | 5 x 2mm thickness | EI 60 U/C |
| PVC Pipe 110mm Ø, 6.6mm wall thickness. 20 mm thick Kingspan Kooltherm FM ³ insulation (C/S) | 5 x 2mm thickness | EI 60 U/C |
| PVC Pipe 40mm Ø, 1.9mm wall thickness. 32 mm thick Armacell Armaflex Class O ² (C/S) | 3 x 2mm thickness | EI 60 U/C |
| PVC Pipe 40mm Ø, 3mm wall thickness. 9 mm thick Armacell Armaflex Class O ² (C/S) | 3 x 2mm thickness | |
| PVC Pipe 110mm Ø, 4.2mm wall thickness. 32 mm thick Armacell Armaflex Class O ² (C/S) | 5 x 2mm thickness | EI 60 U/C |
| PVC Pipe 110mm Ø, 6.6mm wall thickness. 13 mm thick Armacell Armaflex Class O ² (C/S) | 5 x 2mm thickness | EI 60 U/C |

¹PROMASEAL® Wrap secured internally within both faces of the PROMASEAL® Fire Barrier

²Or equivalent elastomeric pipe insulation classified BL – s2, d0 or better to EN 13501-1

³Or equivalent Phenolic foam pipe insulation classified BL – s1, d0 or better to EN 13501-1

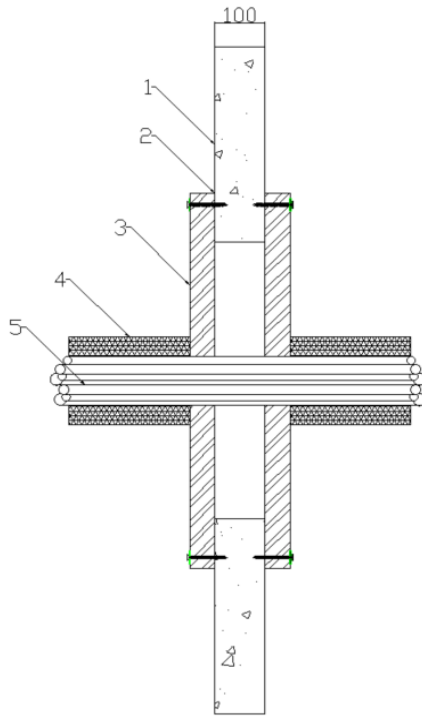


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Single Layer Pattress, PROMASEAL® Fire Barrier 50mm, Electrical Cables and Conduits

Max Aperture 750mm Wide x 1200mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Insulation
5. Penetration Service

| Service(s) | Classification |
|--|----------------|
| ² Electrical cables upto 80mm Ø | EI 120 |
| ² Cable Trays and Ladders | |
| ² 100 mm diameter bundle telecommunication cable type "F" | |
| ² Unsheathed electrical cables up to 24mm Ø | |
| ² Steel or Copper Conduits up to 16mm Ø | |
| ² Plastic conduits up to 16mm Ø | |

¹Pattress installation of PROMASEAL® Fire Barrier. 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 centres

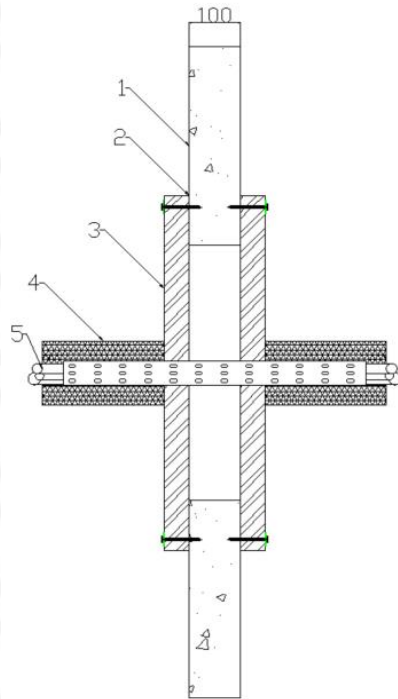
²Cables and cable trays wrapped with a single layer of 40mm thick, 40kg/m³ Stonewool (L/I 300mm)



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Max Aperture 2600mm Wide x 2600mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Insulation
5. Penetration Service

Service(s)

Classification

²Electrical cables upto 80mm Ø

²Cable Trays and Ladders

²100 mm diameter bundle telecommunication cable type "F"

²Unsheathed electrical cables up to 24mm Ø

²Steel or Copper Conduits up to 16mm Ø

²Plastic conduits up to 16mm Ø

EI 60

¹Pattern installation of PROMASEAL® Fire Barrier. The Battens are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of battens to substrate min 100mm. Battens mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centres

²Cables and cable trays wrapped with a single layer of 40mm thick, 40kg/m³ Stonewool (L/I 300mm)

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Single Layer Pattress, PROMASEAL® Fire Barrier 50mm, Insulated Metallic Pipes

| Max Aperture 750mm Wide x 1200mm High | |
|---|--|
| | <p><u>Key</u></p> <ol style="list-style-type: none"> 1. Supporting construction 2. PROMASEAL® Intumescent Acrylic Sealant 3. PROMASEAL® Fire Barrier 4. PROMASEAL® Wrap 5. Insulation 6. Penetration Service |
| Service(s) | Classification |
| ² Steel or Copper Pipe 42-159mm Ø, 1.2mm – 14.2mm wall thickness. 13-25mm thick K Flex ST Insulation ³ (C/S) | E 120 C/U EI 60 C/U |
| ² Steel or Copper Pipe 42-159mm Ø, 1.2 – 14.2mm wall thickness. 25mm thick K Flex ST insulation ³ (C/S) | E 120 C/U EI 90 C/U |
| ² Steel or Copper Pipe 42mm Ø, 1 – 14.2mm wall thickness. 25-13mm thick K Flex ST insulation ³ (C/S) | EI 120 C/U |
| ² Steel or Copper Pipe 42-108mm Ø, 1.2 – 14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM insulation ⁴ (C/S) | E 120 C/U EI 90 C/U |
| ² Steel or Copper Pipe 42mm Ø, 1-14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM insulation ⁴ (C/S) | EI 120 C/U |
| ² Steel or Copper Pipe 42mm Ø, 1.2-14.2mm wall thickness. 50mm thick glassfibre insulation min. 30kg/m ³ (C/S) | E 120 C/U EI 90 C/U |

¹Pattress installation of PROMASEAL® Fire Barrier. 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 centres.

² 2 x 2mm thick layers of PROMASEAL® Wrap installed both sides of the substrate within the Pattress installation

³ Or equivalent elastomeric pipe insulation classified BL – s2, d0 or better to EN 13501-1

⁴ Or equivalent Phenolic foam pipe insulation classified BL – s1, d0 or better to EN 13501-1



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| Max Aperture 2600mm Wide x 2600mm High | |
|---|--|
| | <p>Key</p> <ol style="list-style-type: none"> 1. Supporting construction 2. PROMASEAL® Intumescent Acrylic Sealant 3. PROMASEAL® Fire Barrier 4. PROMASEAL® Wrap 5. Insulation 6. Penetration Service |
| Service(s) | Classification |
| ² Steel or Copper Pipe 42-159mm Ø, 1.2mm – 14.2mm wall thickness. 13-25mm thick K Flex ST ³ Insulation (C/S) | EI 60 C/U |
| ² Steel or Copper Pipe 42-159mm Ø, 1.2 – 14.2mm wall thickness. 25mm thick K Flex ST ³ insulation (C/S) | |
| ² Steel or Copper Pipe 42mm Ø, 1 – 14.2mm wall thickness. 25-13mm thick K Flex ST ³ insulation (C/S) | |
| ² Steel or Copper Pipe 42-108mm Ø, 1.2 – 14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM ⁴ insulation (C/S) | |
| ² Steel or Copper Pipe 42mm Ø, 1-14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM ⁴ insulation (C/S) | |
| ² Steel or Copper Pipe 42mm Ø, 1.2-14.2mm wall thickness. 50mm thick glassfibre insulation min. 30kg/m ³ (C/S) | |

¹Pattress installation of PROMASEAL® Fire Barrier. 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 centres.

² x 2mm thick layers of PROMASEAL® Wrap installed both sides of the substrate within the Pattress installation

³Or equivalent elastomeric pipe insulation classified BL – s2, d0 or better to EN 13501-1

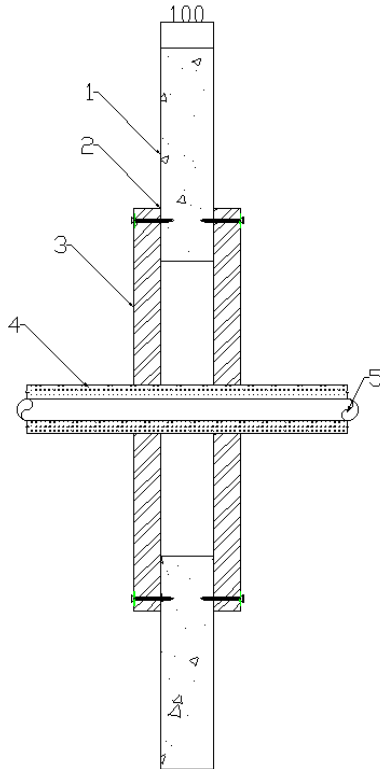
⁴Or equivalent Phenolic foam pipe insulation classified BL – s1, d0 or better to EN 13501-1



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Max Aperture 750mm Wide x 1200mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Insulation
5. Penetration Service

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 ³ (C/S) | E 120 C/U EI 90 C/U |
| Steel or Copper Pipe 42mm Ø, 1mm – 14.2mm wall thickness. 25mm thick foil faced glassfibre insulation min. 30kg/m ³ (C/S) | EI 120 C/U |

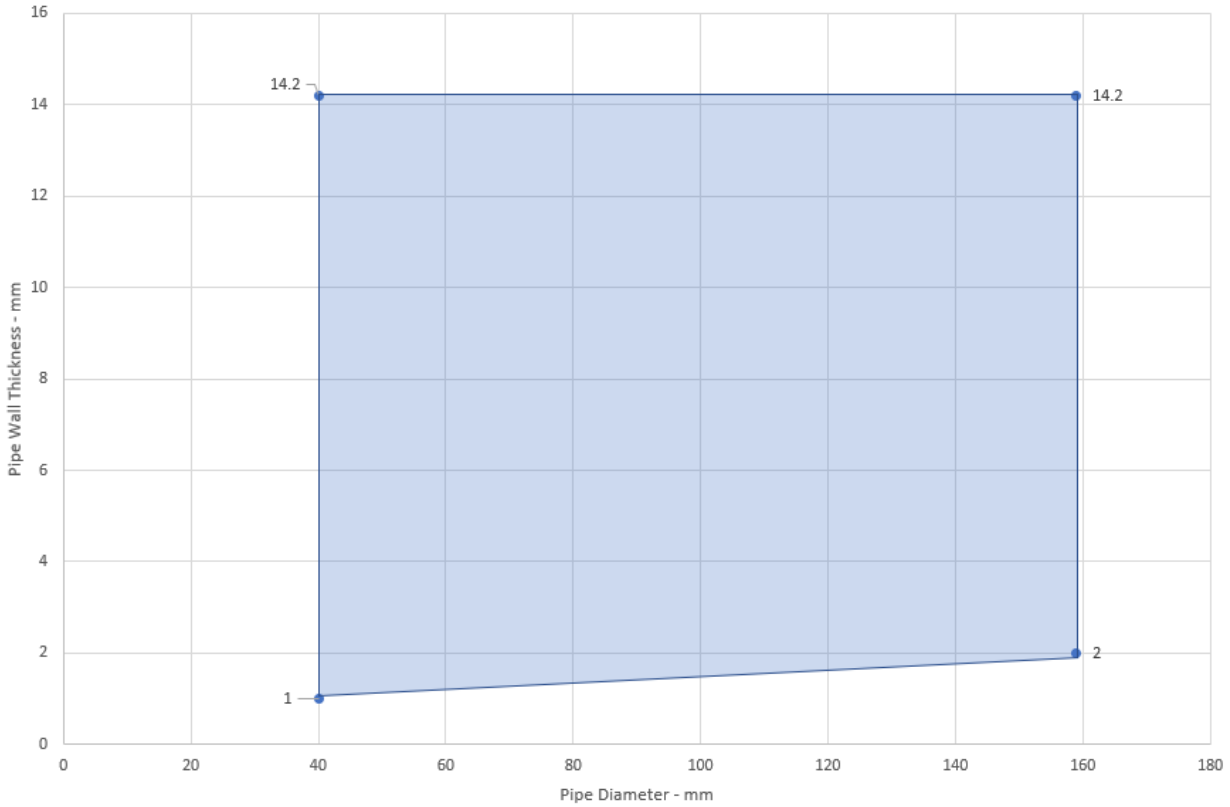
¹Pattress installation of PROMASEAL® Fire Barrier. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centres.



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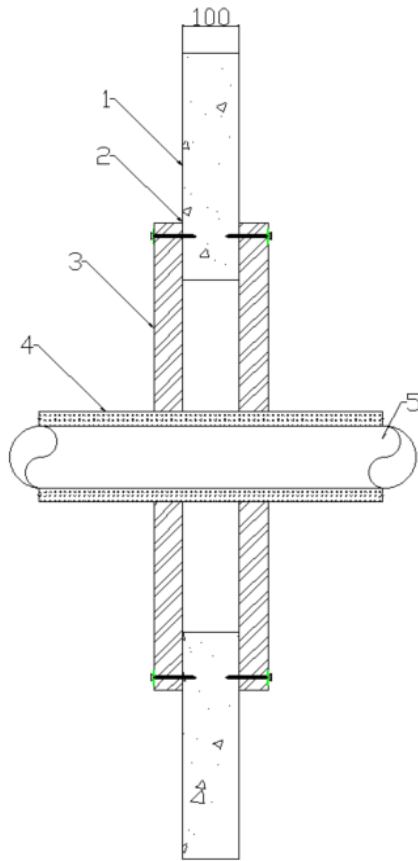
Permitted Pipe Diameter vs Pipe Wall Thickness



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Max Aperture 2600mm Wide x 2600mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Insulation
5. Penetration Service

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 ³ (C/S) | EI 60 C/U |
| Steel or Copper Pipe 42mm Ø, 1mm – 14.2mm wall thickness. 25mm thick foil faced glassfibre insulation min. 30kg/m ³ (C/S) | EI 60 C/U |

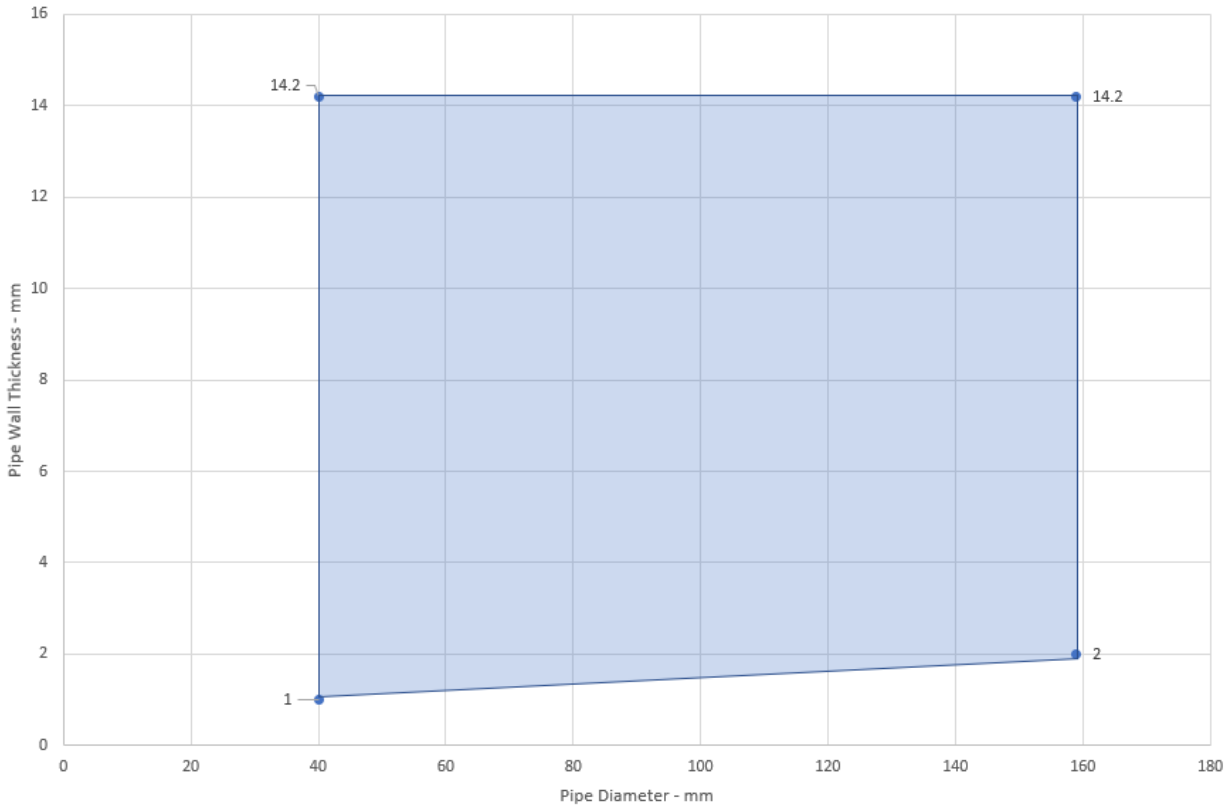
¹Pattress installation of PROMASEAL® Fire Barrier. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centres.



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Permitted Pipe Diameter vs Pipe Wall Thickness



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Single Layer Pattress, PROMASEAL® Fire Barrier 50mm, Plastic Pipes

| Max Aperture 730mm Wide x 1200mm High (Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal) | | |
|---|-----------------------|---|
| | | Key 1. Supporting construction 2. PROMASEAL® Intumescent Acrylic Sealant 3. PROMASEAL® Fire Barrier 4. PROMASEAL® Collar 5. Penetration Service |
| Service(s) | PROMASEAL® Collar 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 | |

¹Pattress installation of PROMASEAL® Fire Barrier. 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 centres.

Collars secured both faces of the substrate utilising 80mm long pig tail screw through to the PROMASEAL® Fire Barrier

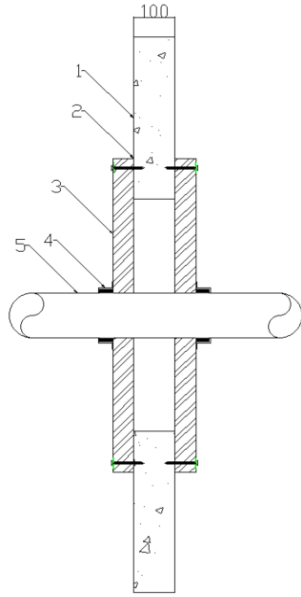


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Max Aperture 2600mm Wide x 2600mm High

(Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal)



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Penetration Service

| Service(s) | PROMASEAL® Collar Ref | Classification |
|--|-----------------------|----------------|
| PVC Pipe 32mm Ø, 1.8mm wall thickness | 32mm | EI 60 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 | |

¹Pattern installation of PROMASEAL® Fire Barrier. 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 centres.

Collars secured both faces of the substrate utilising 80mm long pig tail screw through to the PROMASEAL® Fire Barrier

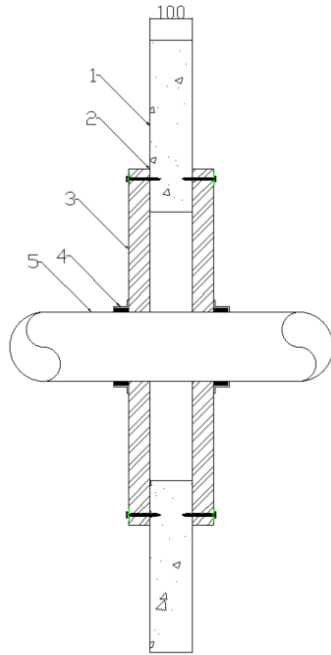


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Max Aperture 730mm Wide x 1200mm High

(Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal)



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Penetration Service

| Service(s) | PROMASEAL® Collar Ref | Classification |
|--|-----------------------|----------------|
| PP Pipe 32mm Ø, 2.9mm wall thickness | 32mm | EI 120 U/C |
| 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 | |

¹Pattern installation of PROMASEAL® Fire Barrier. 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 centres.

Collars secured both faces of the substrate utilising 80mm long pig tail screw through to the PROMASEAL® Fire Barrier

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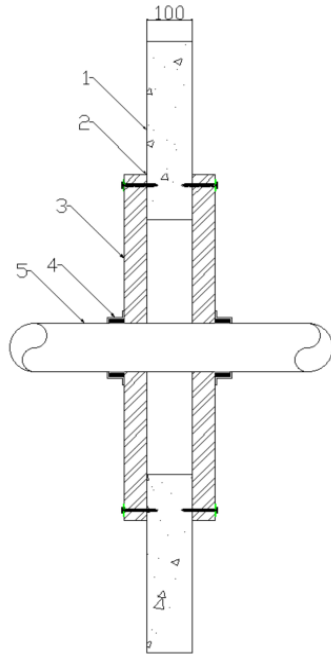


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Max Aperture 2600mm Wide x 2600mm High

(Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal)



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Penetration Service

| Service(s) | PROMASEAL® Collar Ref | Classification |
|--|-----------------------|----------------|
| PP Pipe 32mm Ø, 2.9mm wall thickness | 32mm | EI 60 U/C |
| 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 | |

¹Pattern installation of PROMASEAL® Fire Barrier. 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 centres.

Collars secured both faces of the substrate utilising 80mm long pig tail screw through to the PROMASEAL® Fire Barrier

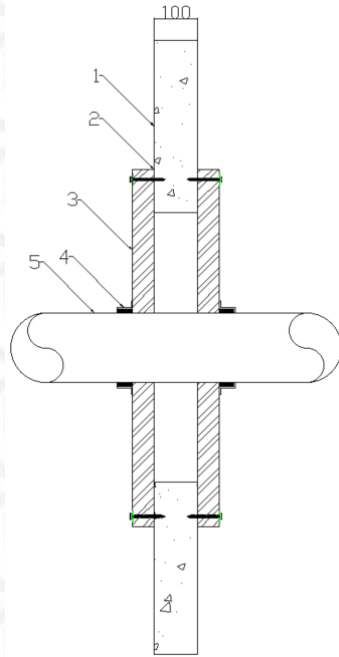


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Max Aperture 730mm Wide x 1200mm High

(Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal)



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Penetration Service

| Service(s) | PROMASEAL® Collar Ref | Classification |
|---|-----------------------|----------------|
| PE Pipe 32mm Ø, 2.9mm wall thickness | 32mm | EI 120 U/C |
| 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 | |

¹Pattress installation of PROMASEAL® Fire Barrier. 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 centres.

Collars secured both faces of the substrate utilising 80mm long pig tail screw through to the PROMASEAL® Fire Barrier

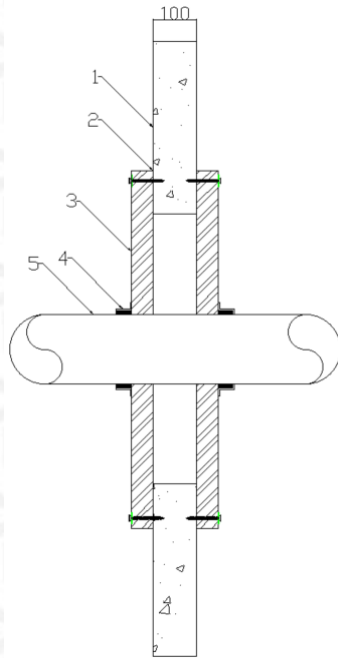
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Max Aperture 2600mm Wide x 2600mm High
 (Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal)



- Key**
1. Supporting construction
 2. PROMASEAL® Intumescent Acrylic Sealant
 3. PROMASEAL® Fire Barrier
 4. PROMASEAL® Collar
 5. Penetration Service

| Service(s) | PROMASEAL® Collar Ref | Classification |
|---|-----------------------|----------------|
| PE Pipe 32mm Ø, 2.9mm wall thickness | 32mm | EI 60 U/C |
| 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 | |

¹Pattern installation of PROMASEAL® Fire Barrier. 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 centres.

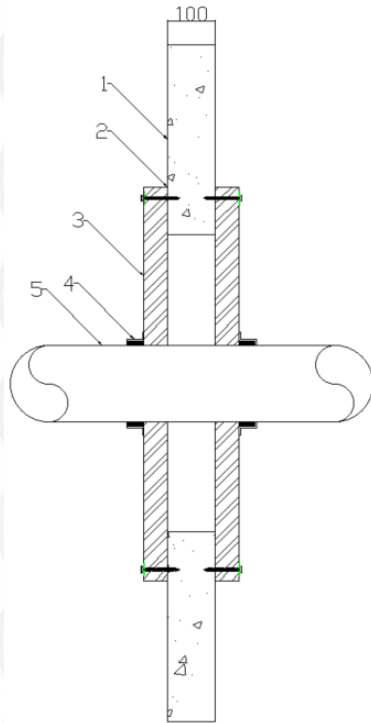
Collars secured both faces of the substrate utilising 80mm long pig tail screw through to the PROMASEAL® Fire Barrier



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Max Aperture 2600mm Wide x 2600mm High
 (Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal)



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Penetration Service

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) |

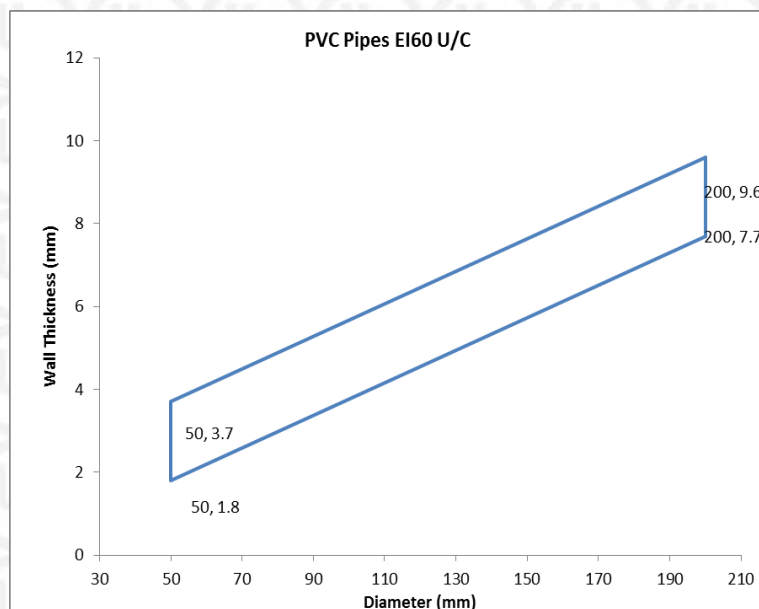
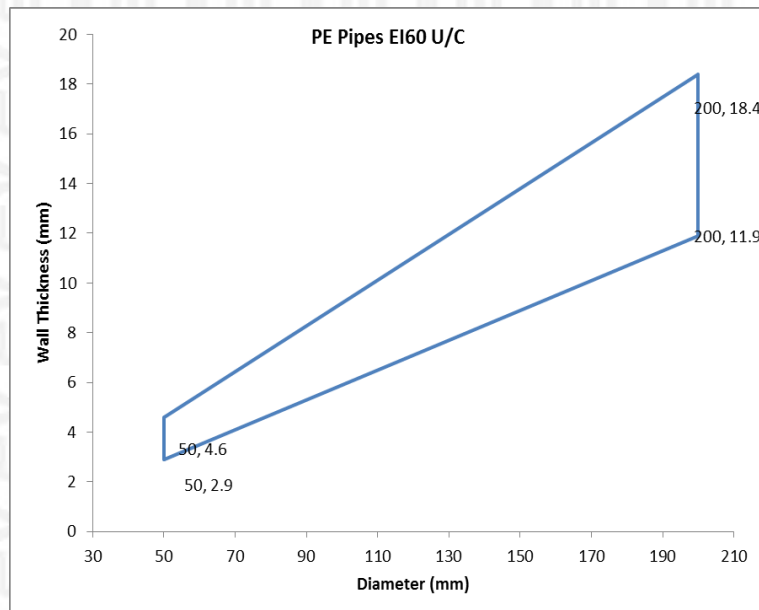
¹Pattress installation of PROMASEAL® Fire Barrier. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centres.

Collars secured both faces of the substrate utilising 80mm long pig tail screw through to the PROMASEAL® Fire Barrier



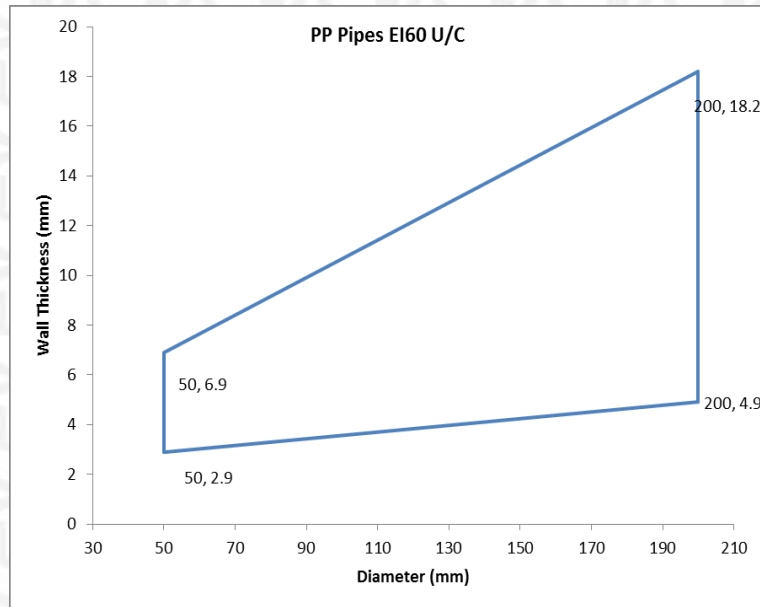
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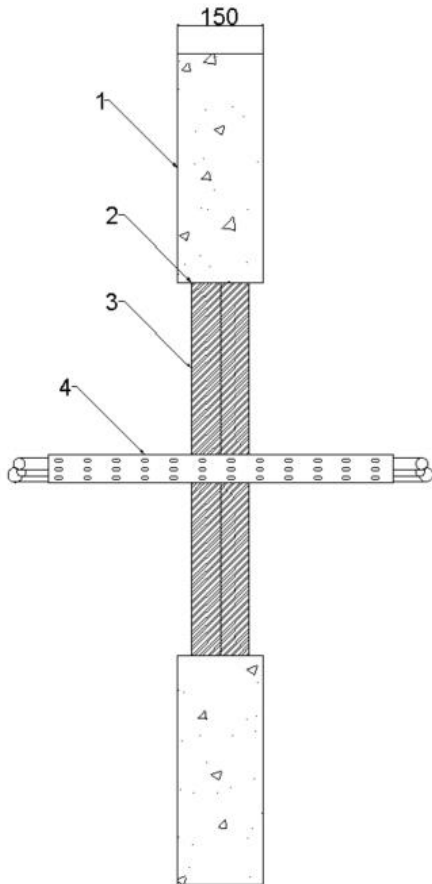
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Rigid Walls Minimum Thickness 150mm

Double Layer, PROMASEAL® Fire Barrier 50mm, Electrical Cables

Max Aperture 750mm Wide x 1100mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Penetration Service

Service(s)

Classification

Electrical cables up to 0-21mm Ø

E120
EI90

Cable Tray

EI 60



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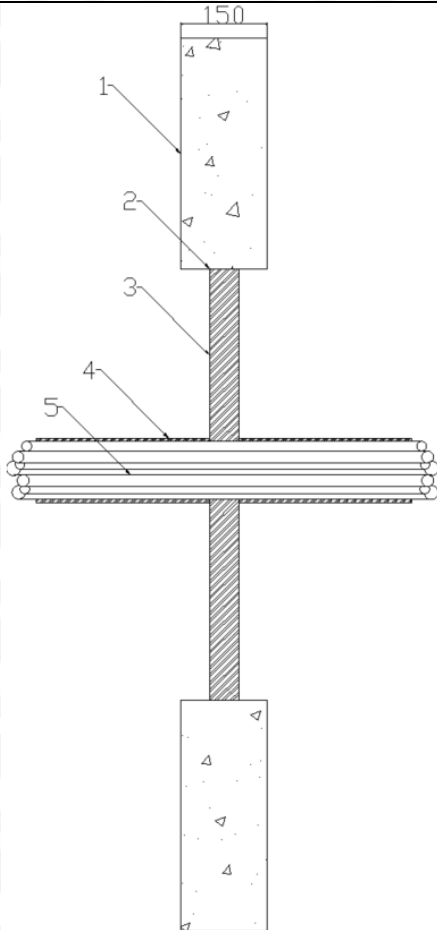
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Single Layer, PROMASEAL® Fire Barrier 50mm, Electrical Cables

Max Aperture 750mm Wide x 1100mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Insulation
5. Penetration Service

| Service(s) | Classification |
|--|----------------|
| ¹ Electrical cables up to 80mm Ø | EI 60 |
| ¹ Cable Trays and Ladders | EI 60 |
| ¹ 100 mm diameter bundle telecommunication cable type "F" | EI 60 |
| ¹ Unsheathed electrical cables up to 24mmØ | EI 60 |

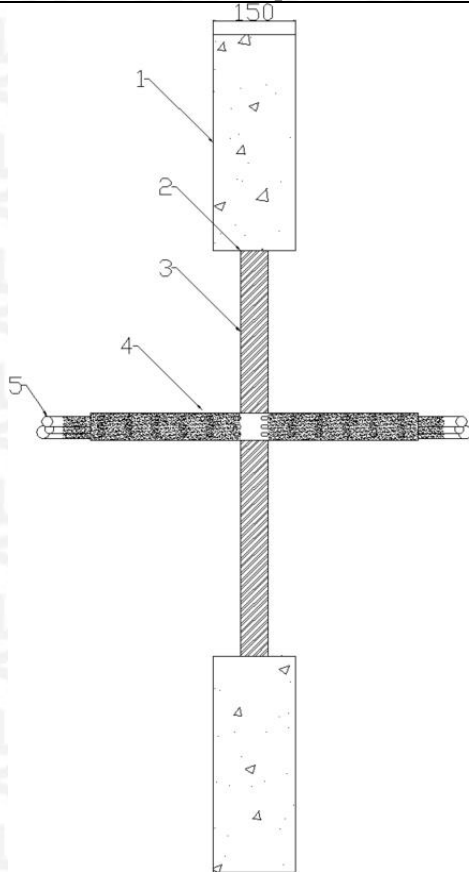
¹Cables and cable trays wrapped with a single layer of 6 mm foil faced ceramic fibre insulation (L/I 300mm)



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Max Aperture 750mm Wide x 1100mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Insulation
5. Penetration Service

Penetration Specification

Classification

*500mm perforated cable tray

EI 30

*Electrical cables up to 21mm ϕ

*1 off 'C1' Cable

*1 off 'C2' Cable

*1 off 'C3' Cable

EI 45

*All cables coated with 2mm DFT PROMASEAL® Fire Barrier Coating 300mm along the cables both sides of the seal



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Single Layer, PROMASEAL® Fire Barrier 50mm, Insulated Metallic Pipes

| Max Aperture 750mm Wide x 1100mm High | |
|--|--|
| | <p>Key</p> <ol style="list-style-type: none"> 1. Supporting construction 2. PROMASEAL® Intumescent Acrylic Sealant 3. PROMASEAL® Fire Barrier 4. Insulation 5. Penetration Service |
| Service(s) | Classification |
| ¹ Steel or Copper Pipe 108mm Ø, 1.5mm – 14.2mm Wall Thickness. (C/S) 40mm stone wool insulation (min 140Kg/m ³) | E60 C/U EI45 C/U |
| Steel or Copper Pipe 42mm Ø, 1.2mm – 14.2mm wall thickness. (L/I 300mm) 40mm stone wool insulation (min 40Kg/m ³) | EI45 C/U |
| Steel or Copper Pipe 42mm – 159mm Ø, 2mm – 14.2mm wall thickness. (L/I 300mm) 40mm stone wool insulation (min 40Kg/m ³) | E45 C/U EI20 C/U |
| Steel or Copper Pipe 42mm – 159mm Ø, 2mm – 14.2mm wall thickness. (C/I) 40mm stone wool insulation (min 40Kg/m ³) | E45 C/U EI30 C/U |

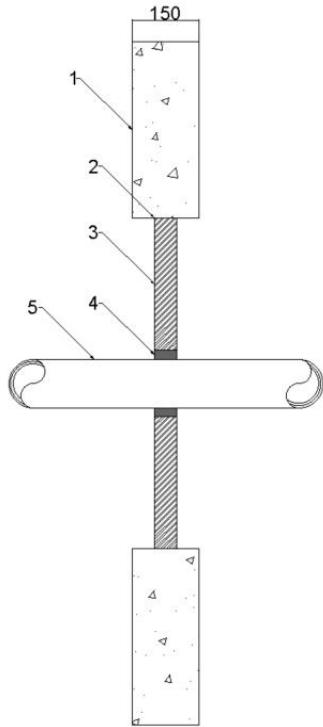


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Single Layer, PROMASEAL® Fire Barrier 50mm, Plastic Pipes

Max Aperture 750mm Wide x 1100mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® HPEX Sealant
5. Penetration Service

Penetration Specification

Classification

Uponor MLC (Multi-Layer Composite) Pipe 40mm ϕ 4mm wall thickness

Uponor MLC (Multi-Layer Composite) Pipe 50mm ϕ 4.5mm wall thickness

Uponor MLC (Multi-Layer Composite) Pipe 63mm ϕ 6mm wall thickness

Uponor MLC (Multi-Layer Composite) Pipe 75mm ϕ 7.5mm wall thickness

Uponor MLC (Multi-Layer Composite) Pipe 90mm ϕ 8.5mm wall thickness

Uponor MLC (Multi-Layer Composite) Pipe 110mm ϕ 10mm wall thickness

E 45 U/C
 EI 30 U/C

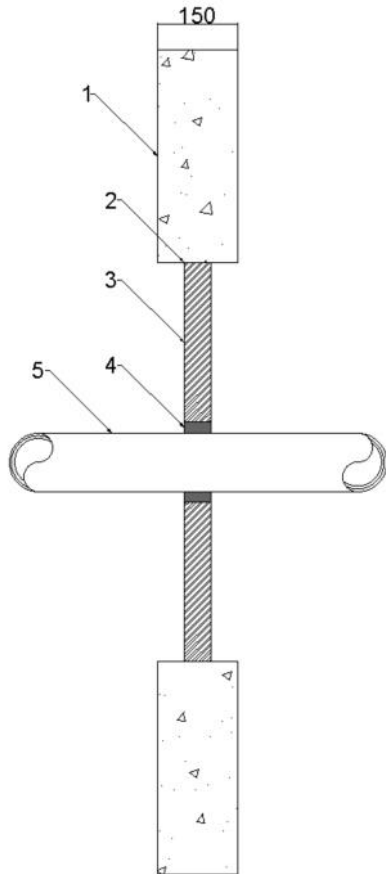
PROMASEAL® HPEX Sealant 20mm annulus full 50mm depth of the PROMASEAL® Fire Barrier



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Max Aperture 750mm Wide x 1100mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® HPEX Sealant
5. Penetration Service

Penetration Specification

PVC Pipe 50mm ϕ 2.4mm wall thickness

Classification

EI45 U/C

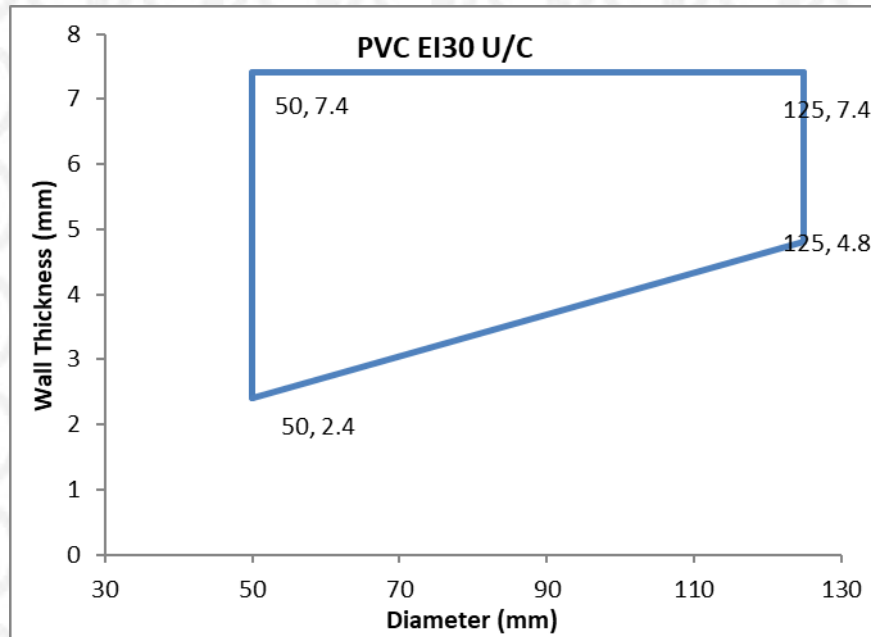
Also scope as per graphs below

PROMASEAL® HPEX Sealant 20mm annulus full 50mm depth of the PROMASEAL® Fire Barrier



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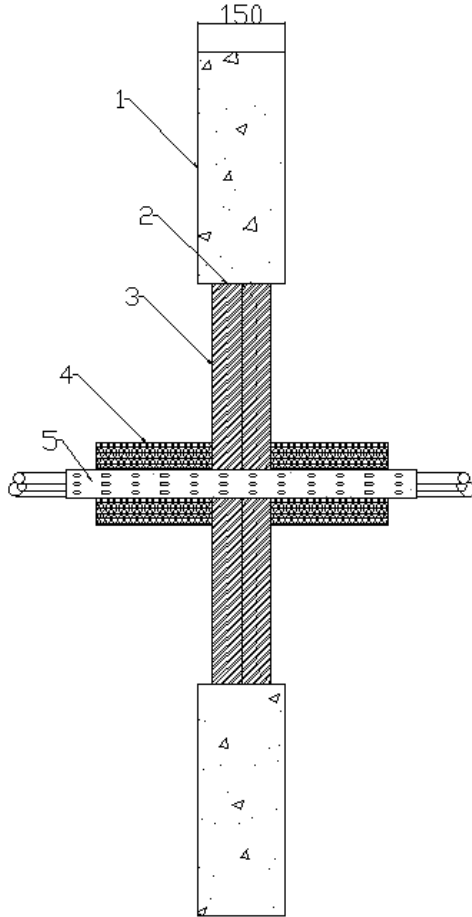


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Double Layer, PROMASEAL® Fire Barrier 50mm, Electrical Cables

Max Aperture 730mm Wide x 1200mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Insulation
5. Penetration Service

| Service(s) | Classification |
|--|----------------|
| ¹ Electrical cables up to 21mm dia | EI 120 |
| ¹ Electrical cables 22mm – 80mm dia | E 120 EI 90 |
| ¹ Cable Trays and Ladders | EI 120 |
| ¹ 100 mm diameter bundle telecommunication cable type “F” | EI 120 |
| ¹ Unsheathed electrical cables up to 24mm dia | EI 120 |

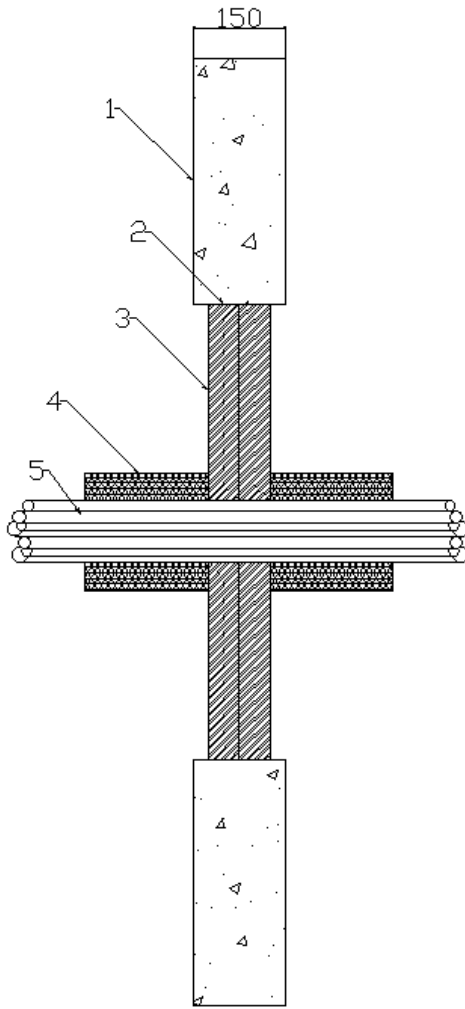
¹Cables and cable trays wrapped with Stone Wool Insulation 45mm thick, 40Kg/m³ (L/I 200mm)



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Max Aperture 2600mm Wide x 2600mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Insulation
5. Penetration Service

Service(s)

Classification

- ¹Electrical cables up to 21mm dia
- ¹Electrical cables 22mm – 80mm dia
- ¹Cable Trays and Ladders
- ¹100 mm diameter bundle telecommunication cable type “F”
- ¹Unsheathed electrical cables up to 24mm dia

EI 60

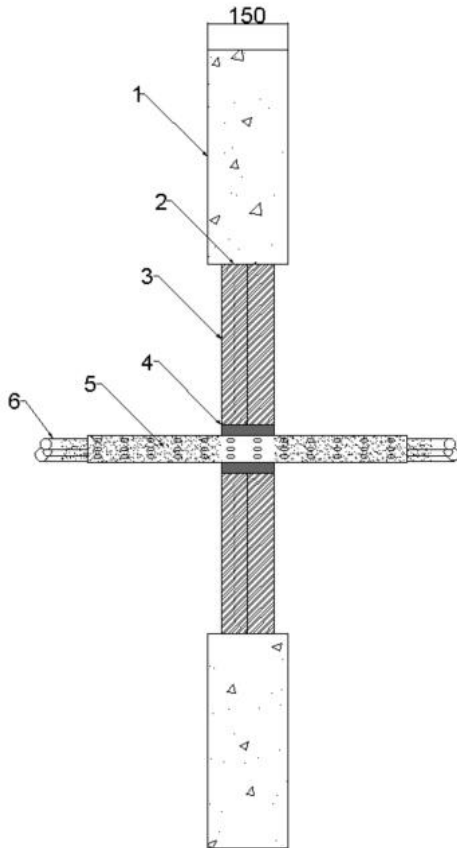
¹Cables and cable trays wrapped with Stone Wool Insulation 45mm thick, 40Kg/m³ (L/I 200mm)



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Max Aperture 750mm Wide x 1100mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® HPEX Sealant
5. PROMASEAL® Fire Barrier Coating
6. Penetration Service

Penetration Specification

Classification

*500mm perforated cable tray

*Electrical cables up to 21mm ϕ

*1 off 'C1' Cable

*1 off 'C2' Cable

*1 off 'C3' Cable

EI120

E120
EI90

EI120

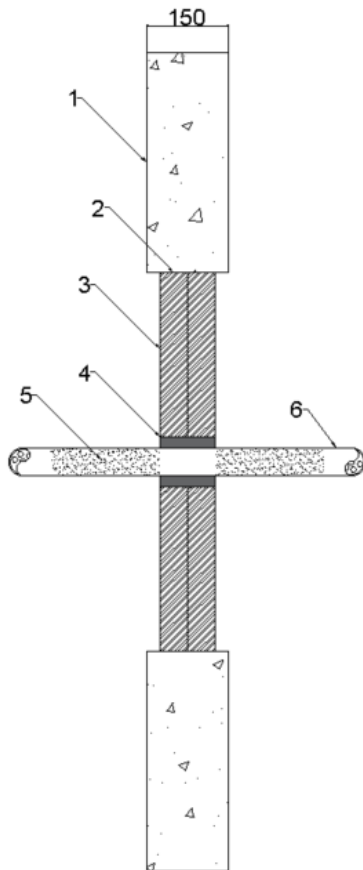
*All cables coated with 2mm DFT PROMASEAL® Fire Barrier Coating 300mm along the cables both sides of the seal PROMASEAL® HPEX Sealant 20mm annulus full 50mm depth of the PROMASEAL® Fire Barrier



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Max Aperture 2600mm Wide x 2600mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® HPEX Sealant
5. PROMASEAL® Fire Barrier Coating
6. Penetration Service

Penetration Specification

Classification

*500mm perforated cable tray

*Electrical cables up to 21mm ϕ

*1 off 'C1' Cable

*1 off 'C2' Cable

*1 off 'C3' Cable

EI 60

*All cables coated with 2mm DFT PROMASEAL® Fire Barrier Coating 300mm along the cables both sides of the seal
 PROMASEAL® HPEX Sealant 20mm annulus full 50mm depth of the PROMASEAL® Fire Barrier

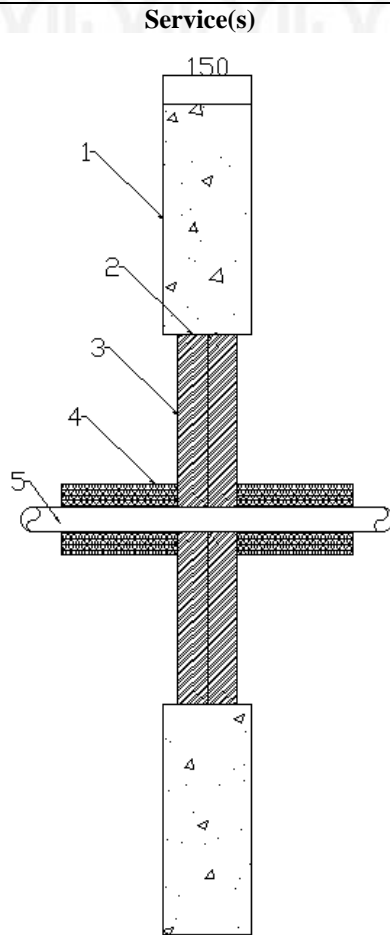


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Double Layer, PROMASEAL® Fire Barrier 50mm, Insulated Metallic Pipes

Max Aperture 730mm Wide x 1200mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Insulation
5. Penetration Service

Penetration Specification

Classification

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

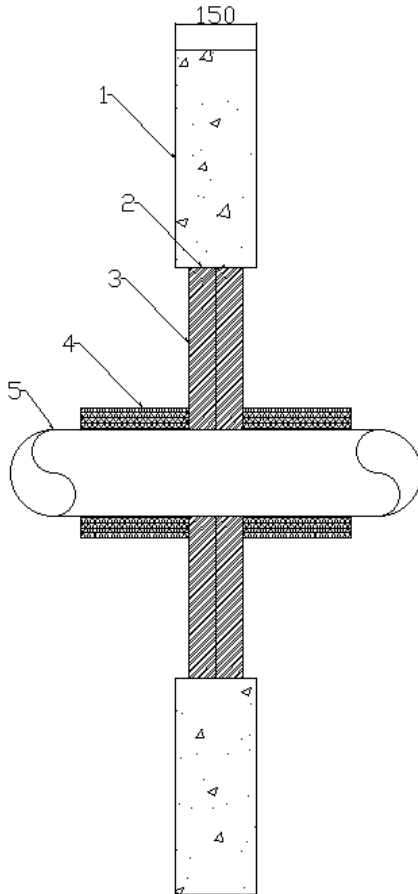


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Max Aperture 2600mm Wide x 2600mm High

Service(s)



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Insulation
5. Penetration Service

Penetration Specification

Classification

Steel or Copper Pipe 42mm Ø, 1.2mm – 14.2mm wall thickness. (L/I 300mm) 40mm stone wool insulation (min 40Kg/m³)

EI 60 C/U

Steel or Copper Pipe 42mm – 159mm Ø, 2mm – 14.2mm wall thickness. (L/I 300mm) 40mm stone wool insulation (min 40Kg/m³)

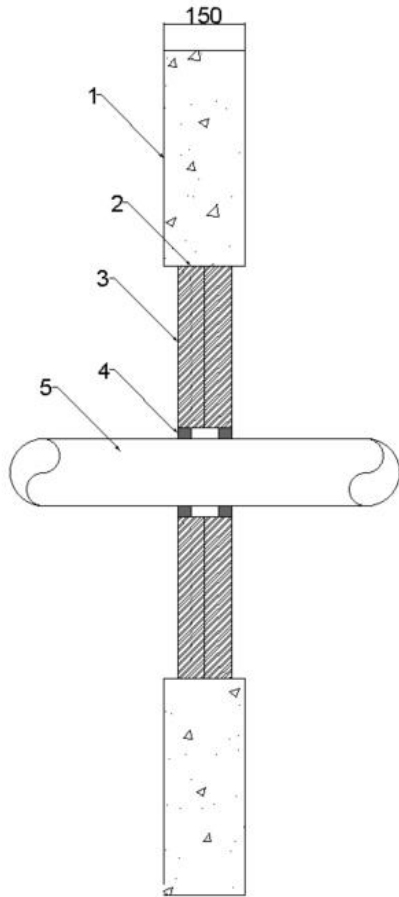
E 60 C/U
EI 30 C/U



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Max Aperture 750mm Wide x 1100mm High



Key

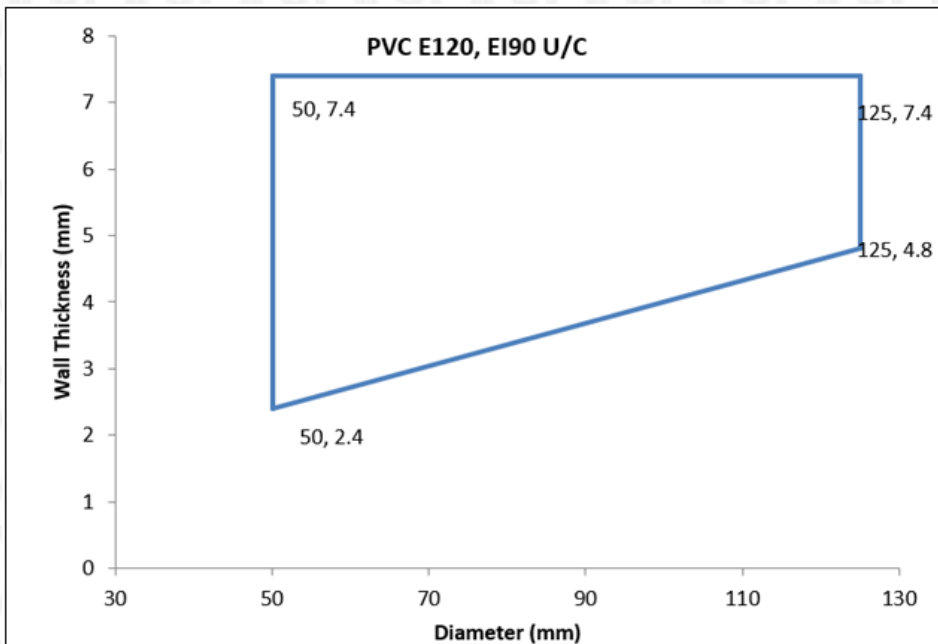
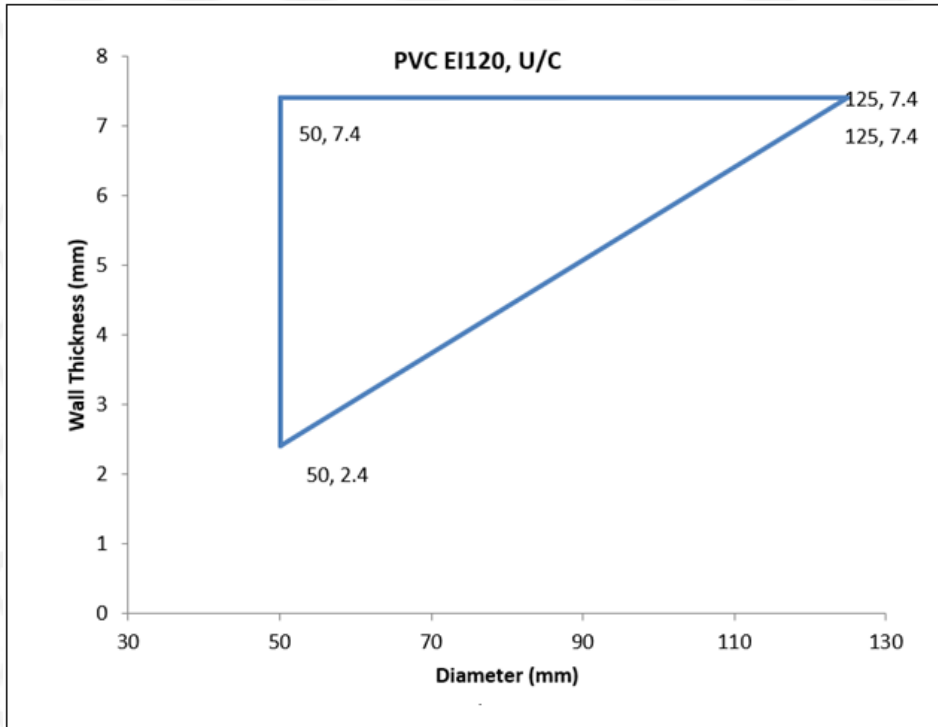
1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® HPEX Sealant
5. Penetration Service

| Penetration Specification | PROMASEAL® HPEX Sealant | Classification |
|---------------------------|---|------------------|
| Pipe Diameters as below | 20mm annulus, 25mm deep both faces of the PROMASEAL® Fire Barrier | See graphs below |



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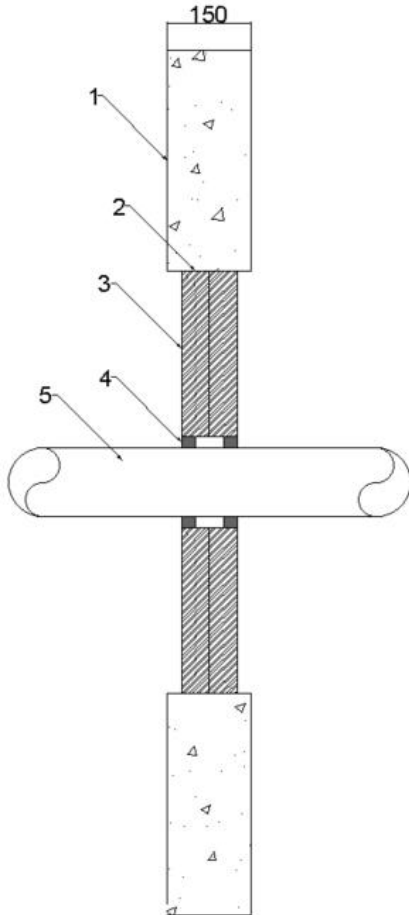
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Max Aperture 2600mm Wide x 2600mm High



Key

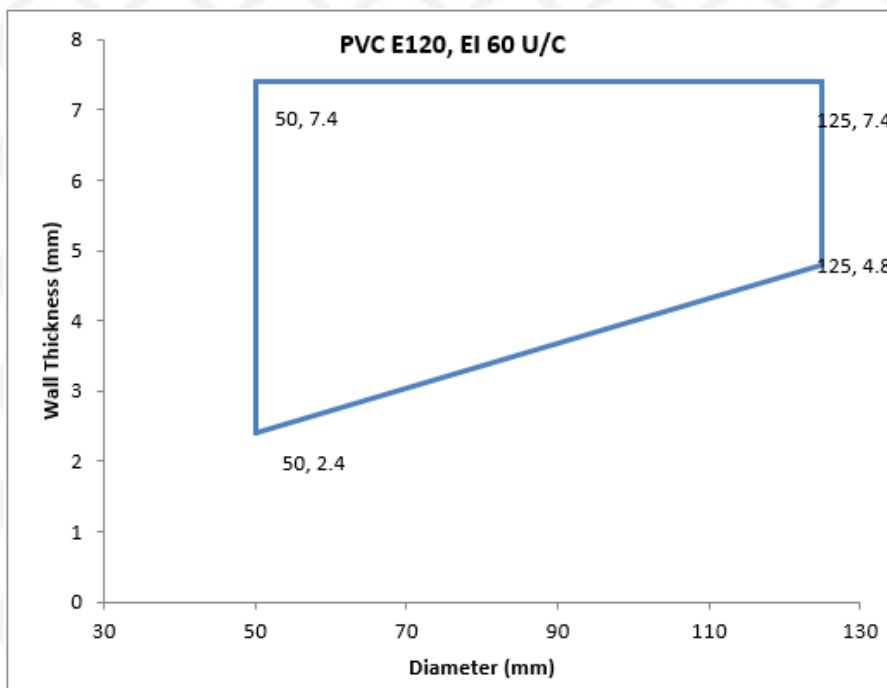
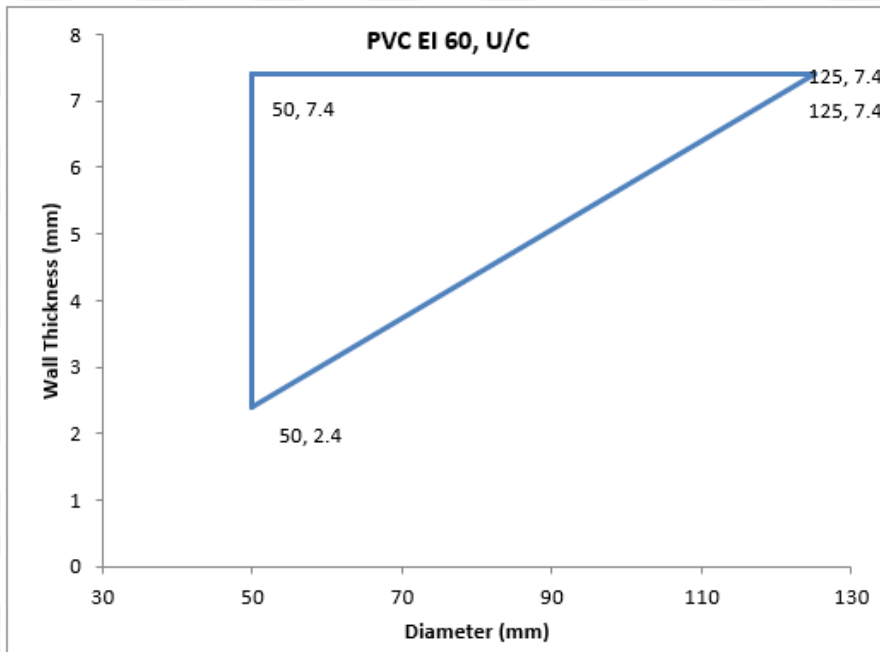
1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® HPEX Sealant
5. Penetration Service

| Penetration Specification | PROMASEAL® HPEX Sealant | Classification |
|---------------------------|---|----------------|
| Pipe Diameters as below | 20mm annulus, 25mm deep both faces of the PROMASEAL® Fire Barrier | EI 60 |



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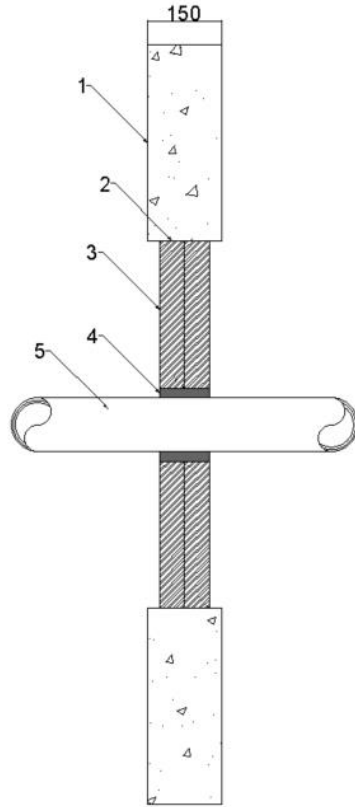
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Max Aperture 750mm Wide x 1100mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® HPEX Sealant
5. Penetration Service

Penetration Specification

Classification

Uponor MLC (Multi-Layer Composite) Pipe 40mm ϕ 4mm wall thickness

Uponor MLC (Multi-Layer Composite) Pipe 50mm ϕ 4.5mm wall thickness

Uponor MLC (Multi-Layer Composite) Pipe 63mm ϕ 6mm wall thickness

Uponor MLC (Multi-Layer Composite) Pipe 75mm ϕ 7.5mm wall thickness

Uponor MLC (Multi-Layer Composite) Pipe 90mm ϕ 8.5mm wall thickness

Uponor MLC (Multi-Layer Composite) Pipe 110mm ϕ 10mm wall thickness

EI 120 U/C

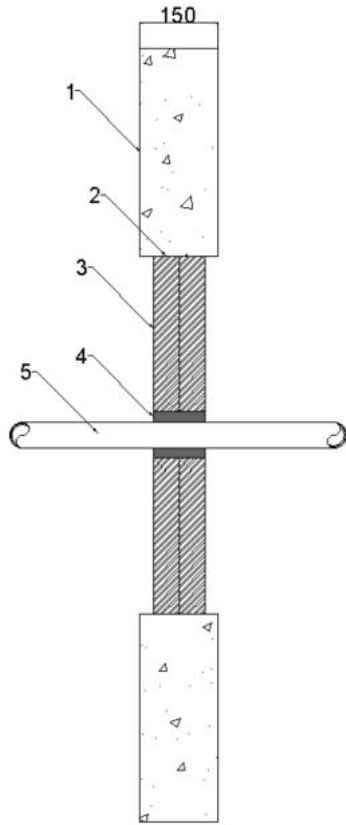
PROMASEAL® HPEX Sealant 20mm annulus full 50mm depth of the PROMASEAL® Fire Barrier



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Max Aperture 2600mm Wide x 2600mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® HPEX Sealant
5. Penetration Service

Penetration Specification

Classification

Uponor MLC (Multi-Layer Composite) Pipe 40mm ø 4mm wall thickness

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

EI 60 U/C

PROMASEAL® HPEX Sealant 20mm annulus full 50mm depth of the PROMASEAL® Fire Barrier



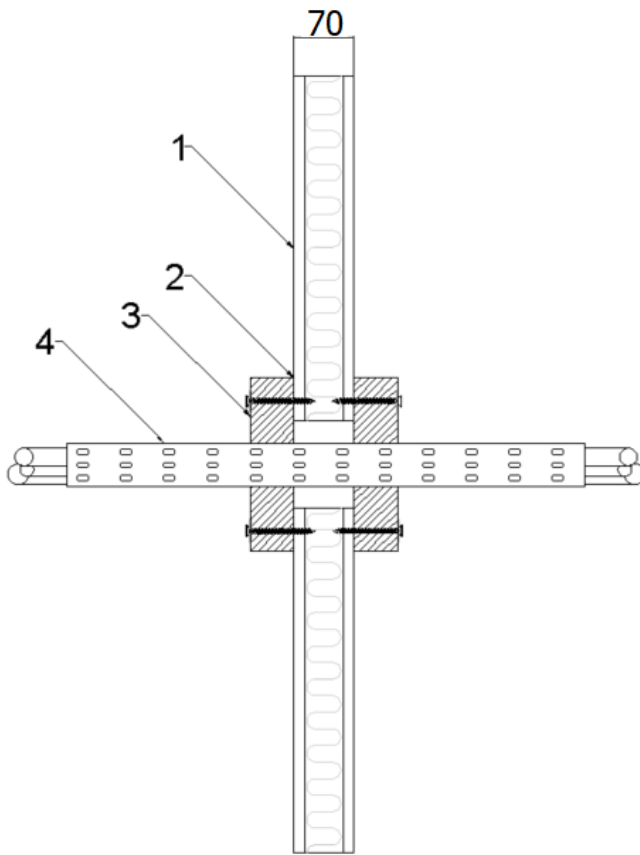
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Flexible Walls Minimum Thickness 70mm

Single Layer Pattress PROMASEAL® Fire Barrier 50mm, Electrical Cables

Max Aperture 570mm Wide x 200mm High



Key

1. Supporting Construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Service Penetration

Service(s)

500mm wide x 60mm deep steel cable basket containing 3 x type 'B' cable and 20 x bundle of telecoms cables

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

Classification

EI 90

¹Pattress installation of PROMASEAL® Fire Barrier. 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

27-CP-F0855 Issue: 3.1

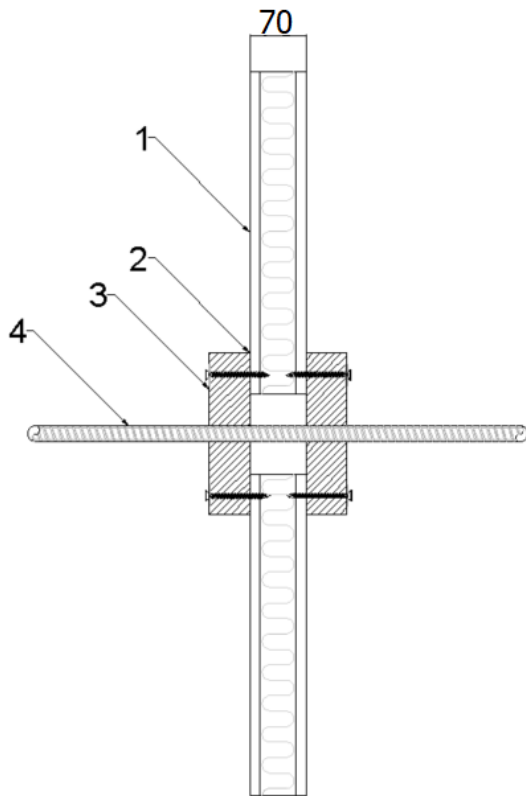


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Single Layer Pattress PROMASEAL® Fire Barrier 50mm, Electrical Cables and Conduits

Max Aperture 570mm Wide x 200mm High



- Key**
1. Supporting Construction
 2. PROMASEAL® Intumescent Acrylic Sealant
 3. PROMASEAL® Fire Barrier
 4. Service Penetration

| Service(s) | Classification |
|--|----------------|
| 20mm dia Adaptaflex SPL20 flexible conduit | EI 90 |
| 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 | E 90 EI 60 |

¹Pattress installation of PROMASEAL® Fire Barrier. 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



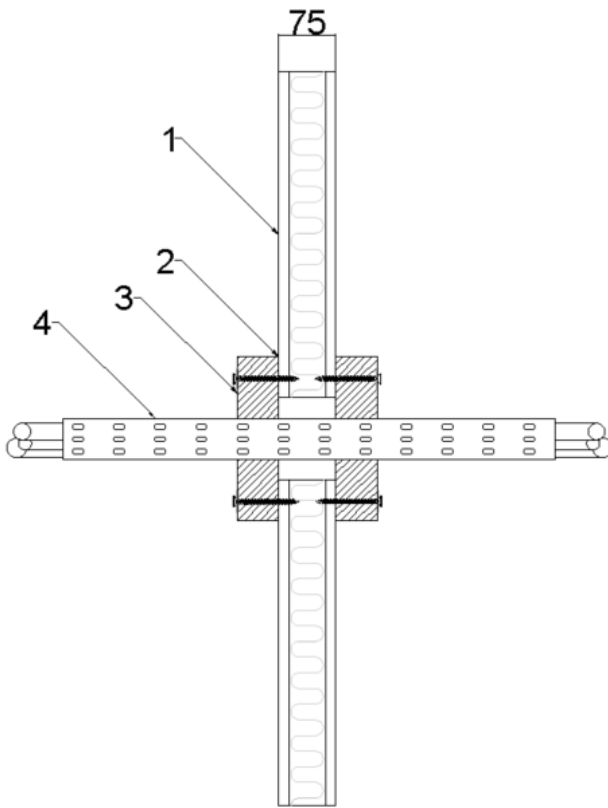
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Flexible Walls Minimum Thickness 75mm

Single Layer Pattress PROMASEAL® Fire Barrier 50mm, Electrical Cables

Max Aperture 570mm Wide x 200mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Penetration Service

Service(s)

500mm wide x 60mm deep steel cable basket containing 3 x type 'B' cable and 20 x bundle of telecoms cables

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

Classification

EI 90

¹Pattress installation of PROMASEAL® Fire Barrier. 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 centres

27-CP-F0855 Issue: 3.1

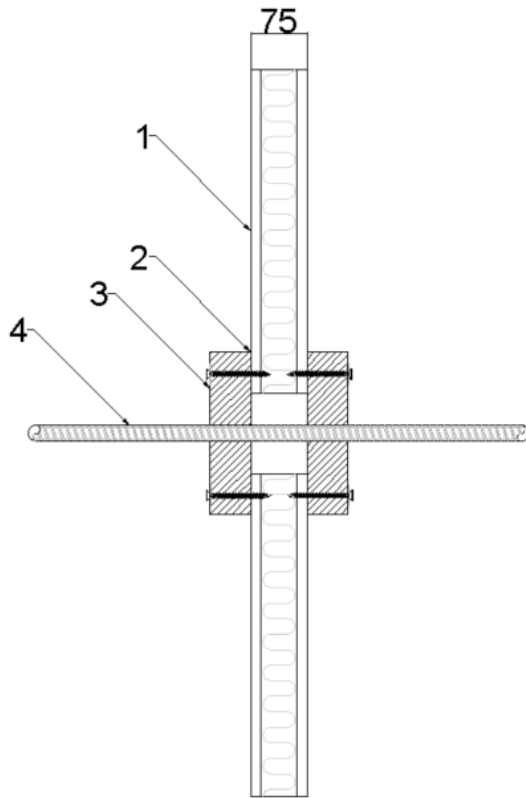


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Single Layer Pattress PROMASEAL® Fire Barrier 50mm, Electrical Cables and Conduits

Max Aperture 200mm Wide x 200mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Penetration Service

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

¹Pattress installation of PROMASEAL® Fire Barrier. 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 centres



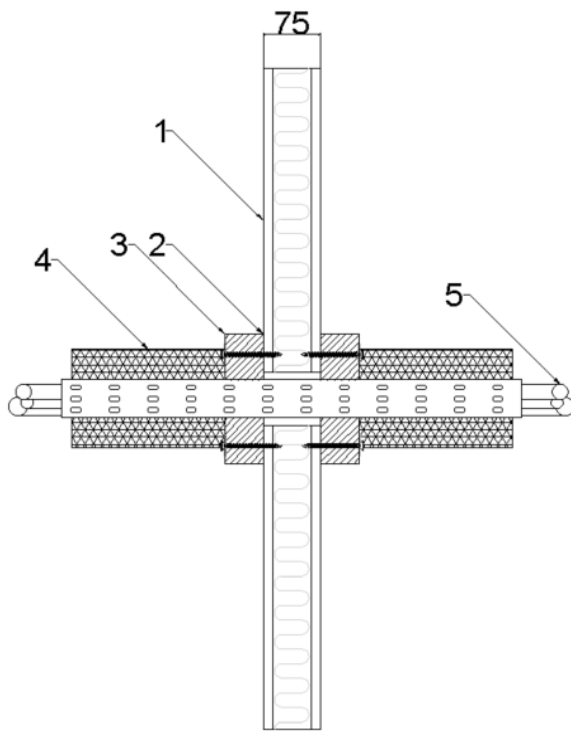
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Flexible Walls Minimum Thickness 75mm

Single Layer Pattress PROMASEAL® Fire Barrier 50mm, Electrical Cables and Cable Trunking

Max Aperture 70mm Wide x 70mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Insulation
5. Penetration Service

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

¹Pattress installation of PROMASEAL® Fire Barrier. 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 centres

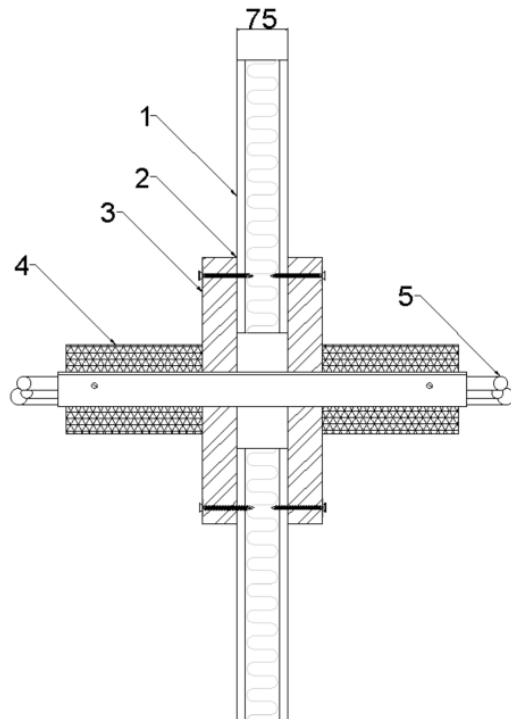


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Single Layer Pattress PROMASEAL® Fire Barrier 50mm, Electrical Cables and Cable Trunking

Max Aperture 170mm Wide x 170mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Insulation
5. Penetration Service

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

¹Pattress installation of PROMASEAL® Fire Barrier. 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 centres



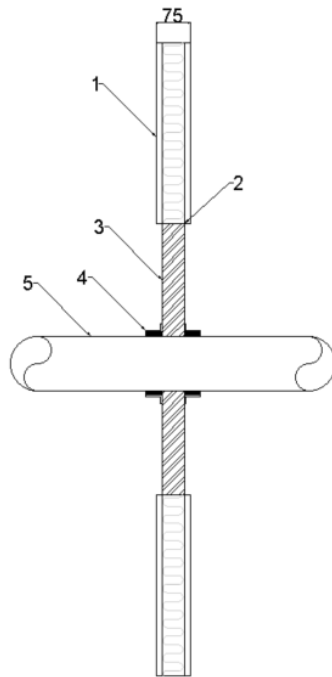
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Single Layer PROMASEAL® Fire Barrier 50mm, Plastic Pipes

Max Aperture 600mm Wide x 600mm High

(Penetrations 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 utilising 80mm long steel pig tail screw through to PROMASEAL® Fire Barrier



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Penetration Service

| Service(s) | PROMASEAL® Collar Ref | Classification |
|--|-----------------------|----------------|
| PVC Pipe 32mm Ø, 1.8mm wall thickness | 32mm | EI 60 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 | |

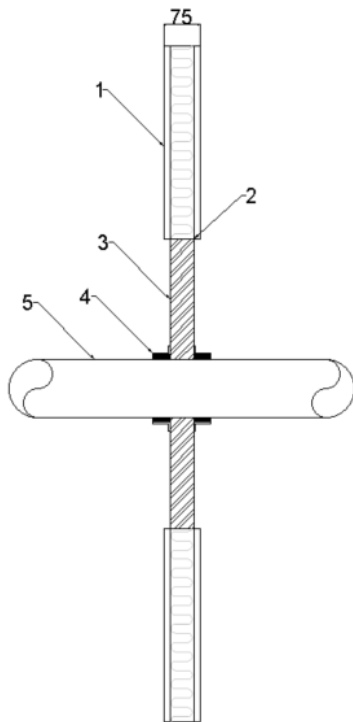


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Max Aperture 600mm Wide x 600mm High

(Penetrations 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 utilising 80mm long steel pig tail screw through to PROMASEAL® Fire Barrier



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Penetration Service

| Service(s) | PROMASEAL® Collar Ref | Classification |
|---|-----------------------|----------------|
| PE Pipe 32mm Ø, 2.9mm wall thickness | 32mm | EI 60 U/C |
| 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 | |

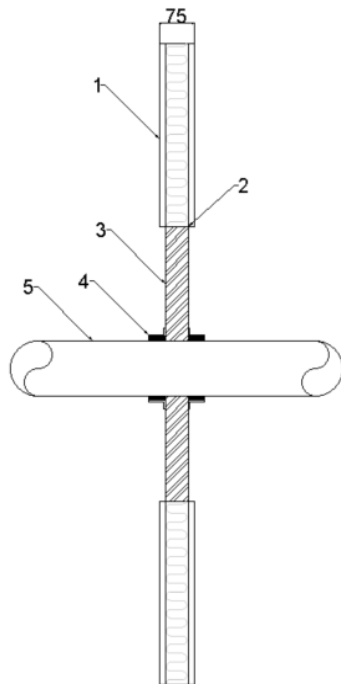


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Max Aperture 600mm Wide x 600mm High

(Penetrations 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 utilising 80mm long steel pig tail screw through to PROMASEAL® Fire Barrier



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Penetration Service

| Service(s) | PROMASEAL® Collar Ref | Classification |
|--|-----------------------|----------------|
| PP Pipe 32mm Ø, 2.9mm wall thickness | 32mm | EI 60 U/C |
| 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 | |



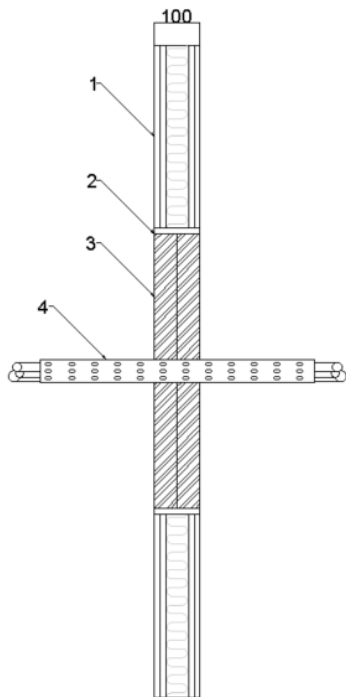
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Flexible Walls Minimum Thickness 100mm

Double Layer PROMASEAL® Fire Barrier 50mm, Electrical Cables and Conduits

Max Aperture 2600mm Wide x 2600mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Penetration Service

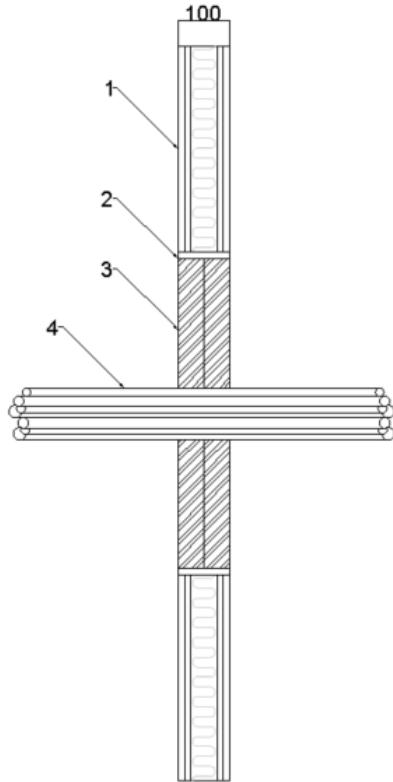
| Service(s) | Classification |
|---|----------------|
| Electrical cables 0mm to 21mm dia | EI 60 |
| Electrical cables 22mm to 50mm dia | E 60 EI 45 |
| Electrical cables 51mm to 80mm dia | E 60 EI 30 |
| Cable Trays and Ladders | E 60 EI 45 |
| 100 mm diameter bundle telecommunication cable type "F"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



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Max Aperture 2600mm Wide x 2600mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Penetration Service

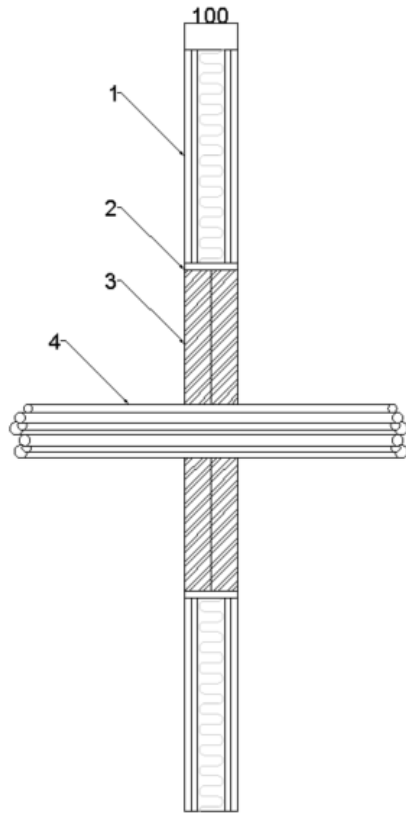
| Service(s) | Classification |
|---|----------------|
| Electrical cables up to 21mm dia | EI 60 |
| Electrical cables 22mm to 80mm dia | E 60 EI 45 |
| Cable Trays and Ladders | EI 60 |
| 100 mm diameter bundle telecommunication cable type "F" | EI 60 |
| Unsheathed electrical cables up to 17mm dia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



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Max Aperture 2600mm Wide x 2600mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Penetration Service

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

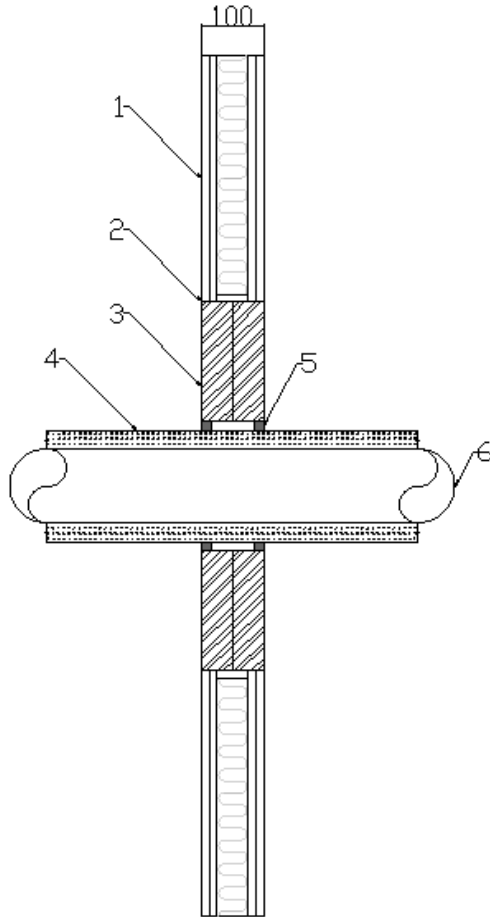


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Double Layer PROMASEAL® Fire Barrier 50mm, Insulated Metallic Pipes

Max Aperture 730mm Wide x 1200mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Insulation
5. PROMASEAL® HPEX Sealant
6. Penetration Service

| Service(s) | Classification |
|---|-----------------------|
| ¹ 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 ³) | E 90 U/C EI 60 U/C |
| ¹ 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 ³) | EI 60 U/C |

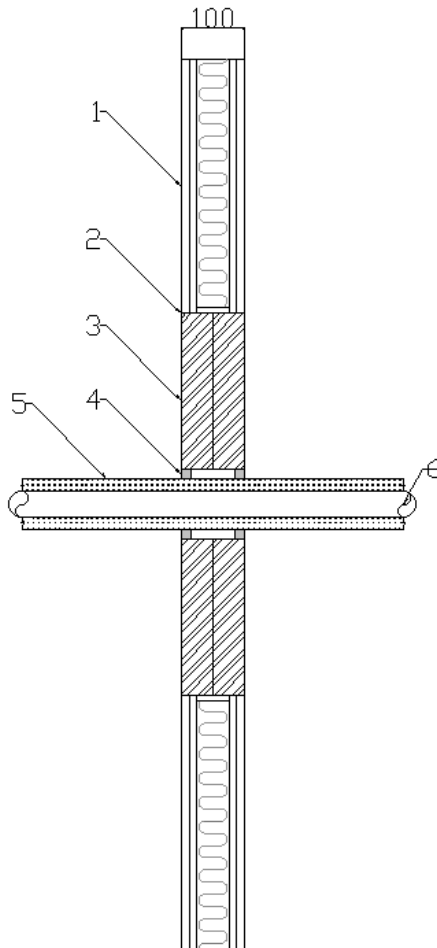
¹15mm deep x 15mm wide annulus PROMASEAL® HPEX Sealant to both faces of the pipe



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Max Aperture 2600mm Wide x 2600mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® HPEX Sealant
5. Insulation
6. Penetration Service

Service(s)

Classification

¹Single 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/m³)

EI 60 U/C

¹Single 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/m³)

EI 60 U/C

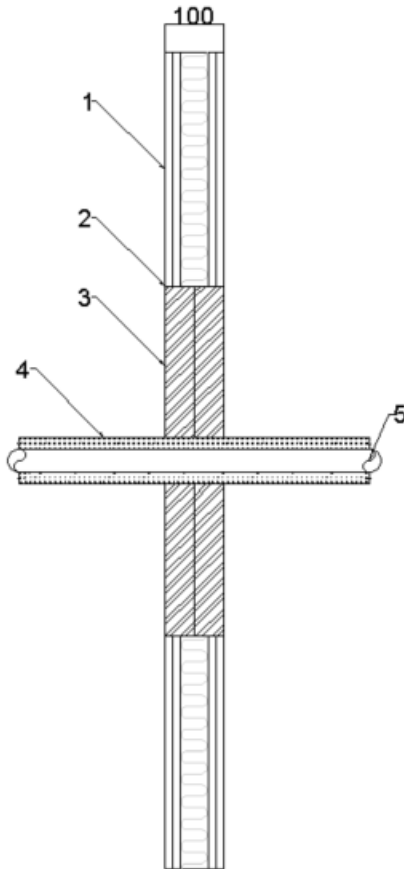
¹15mm deep x 15mm wide annulus PROMASEAL® HPEX Sealant to both faces of the pipe



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Max Aperture 730mm Wide x 1200mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Insulation
5. Penetration Service

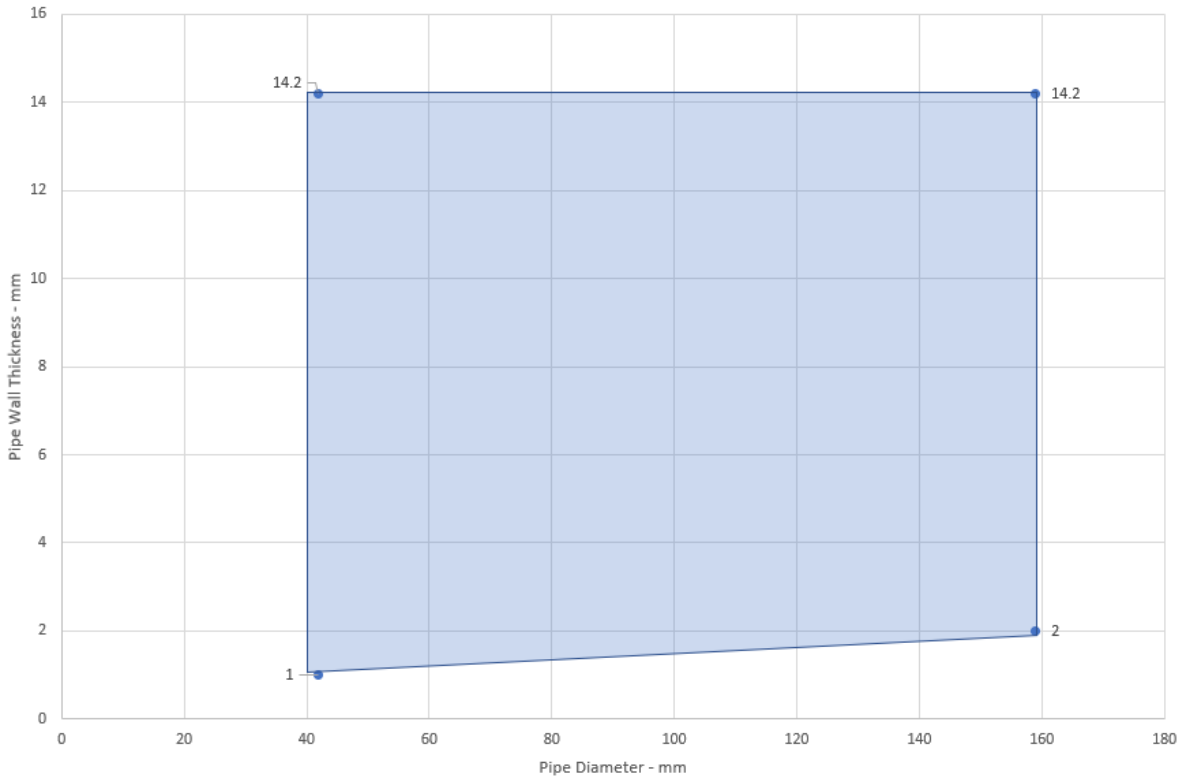
| Service(s) | Classification |
|--|------------------------|
| Steel or Copper Pipe 42-159mm Ø, 1.0mm – 14.2mm wall thickness. 25mm thick foil faced glassfibre insulation min. 30kg/m ³ (C/S) | E 120 C/U EI 45 C/U |
| Steel or Copper Pipe 42mm Ø, 1mm – 14.2mm wall thickness. 25mm thick foil faced glassfibre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



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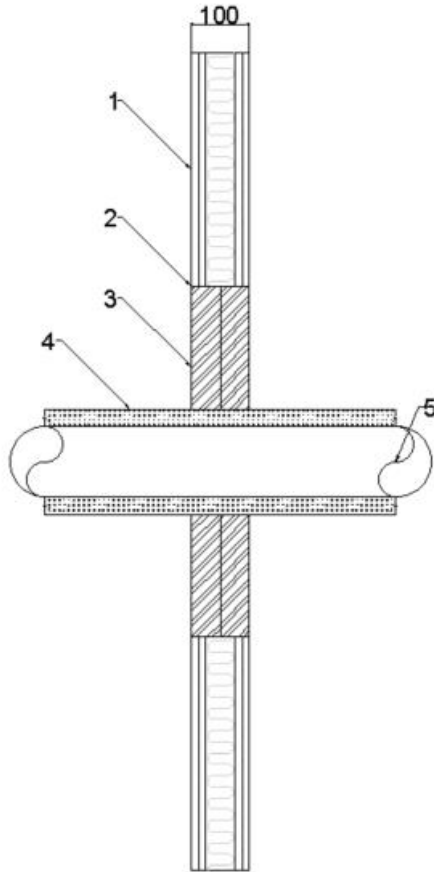
Permitted Pipe Diameter vs Pipe Wall Thickness



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Max Aperture 2600mm Wide x 2600mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Insulation
5. Penetration Service

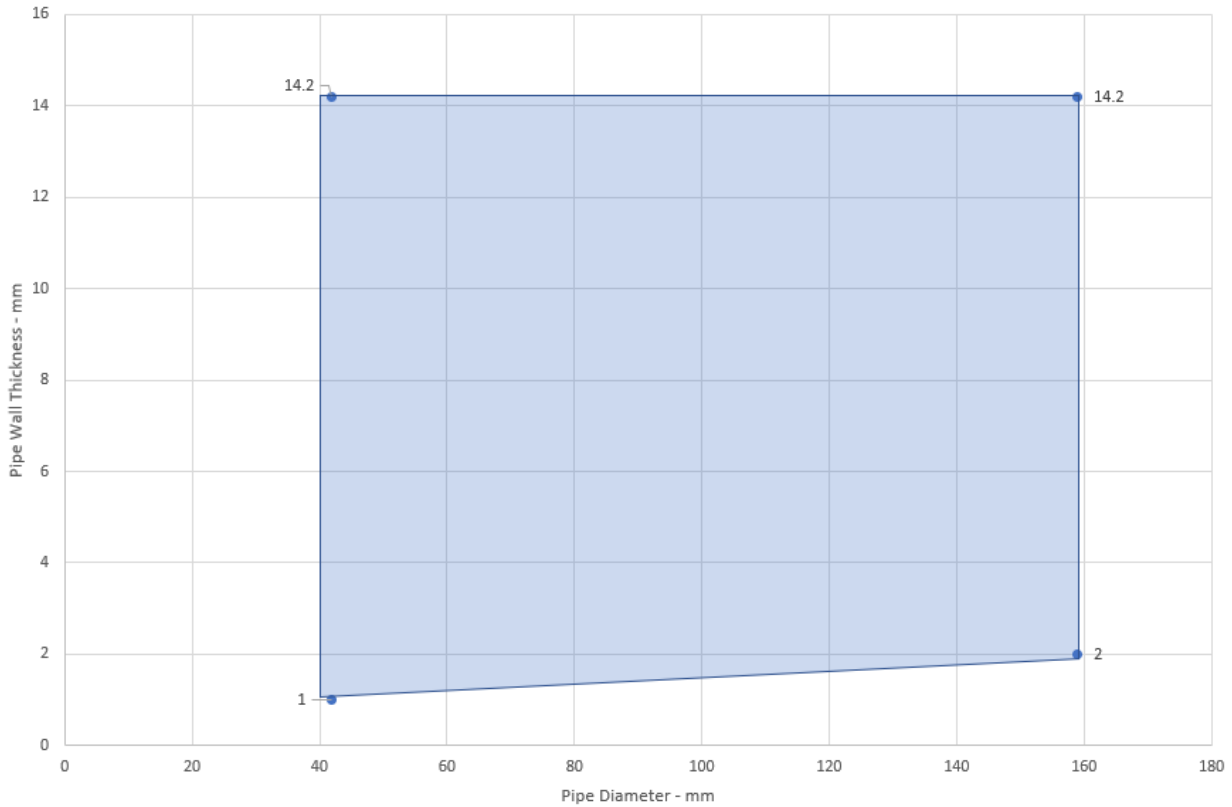
| Service(s) | Classification |
|--|-----------------------|
| Steel or Copper Pipe 42-159mm Ø, 1.0mm – 14.2mm wall thickness. 25mm thick foil faced glassfibre insulation min. 30kg/m ³ (C/S) | E 60 C/U EI 45 C/U |
| Steel or Copper Pipe 42mm Ø, 1mm – 14.2mm wall thickness. 25mm thick foil faced glassfibre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



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Permitted Pipe Diameter vs Pipe Wall Thickness

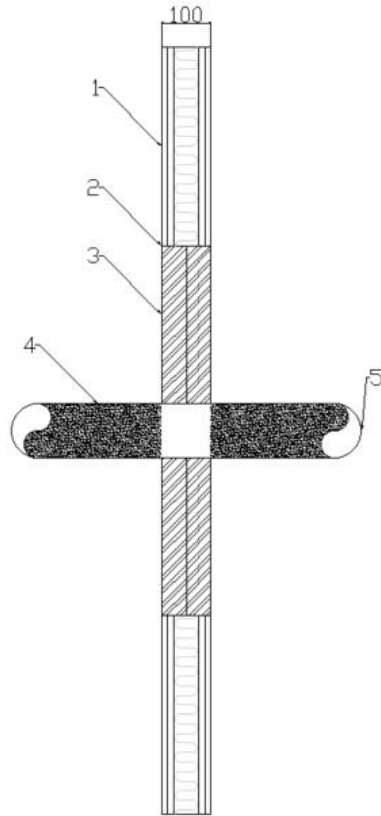


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Max Aperture 730mm Wide x 1200mm High

(Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal)



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Fire Barrier Coating
5. Penetration Service

| 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 ³ (L/I 400mm) | EI 45 C/U |
| Steel 42-324mm Ø, 16mm wall thickness. 40mm thick foil faced stonewool insulation min. 40kg/m ³ (L/I 400mm) | EI 45 C/U |
| Steel 42-324mm Ø, 16mm wall thickness. 40mm thick foil faced stonewool insulation min. 40kg/m ³ (C/I) | EI 60 C/U |
| Steel or Copper Pipe 42mm Ø, 1.0mm – 14.2mm wall thickness PROMASEAL® Fire Barrier Coating along the penetration 2mm DFT (L/I 300mm) | E 120 C/U EI 45 C/U |
| Steel or Copper Pipe 42-159mm Ø, 1.0mm – 14.2mm wall thickness PROMASEAL® Fire Barrier Coating along the penetration 2mm DFT (L/I 300mm) | E 120 C/U EI 20 C/U |
| Steel 42-324mm Ø, 16mm wall thickness. 14.2mm wall thickness PROMASEAL® Fire Barrier Coating along the penetration 2mm DFT (L/I 300mm) | E 120 C/U EI 45 C/U |

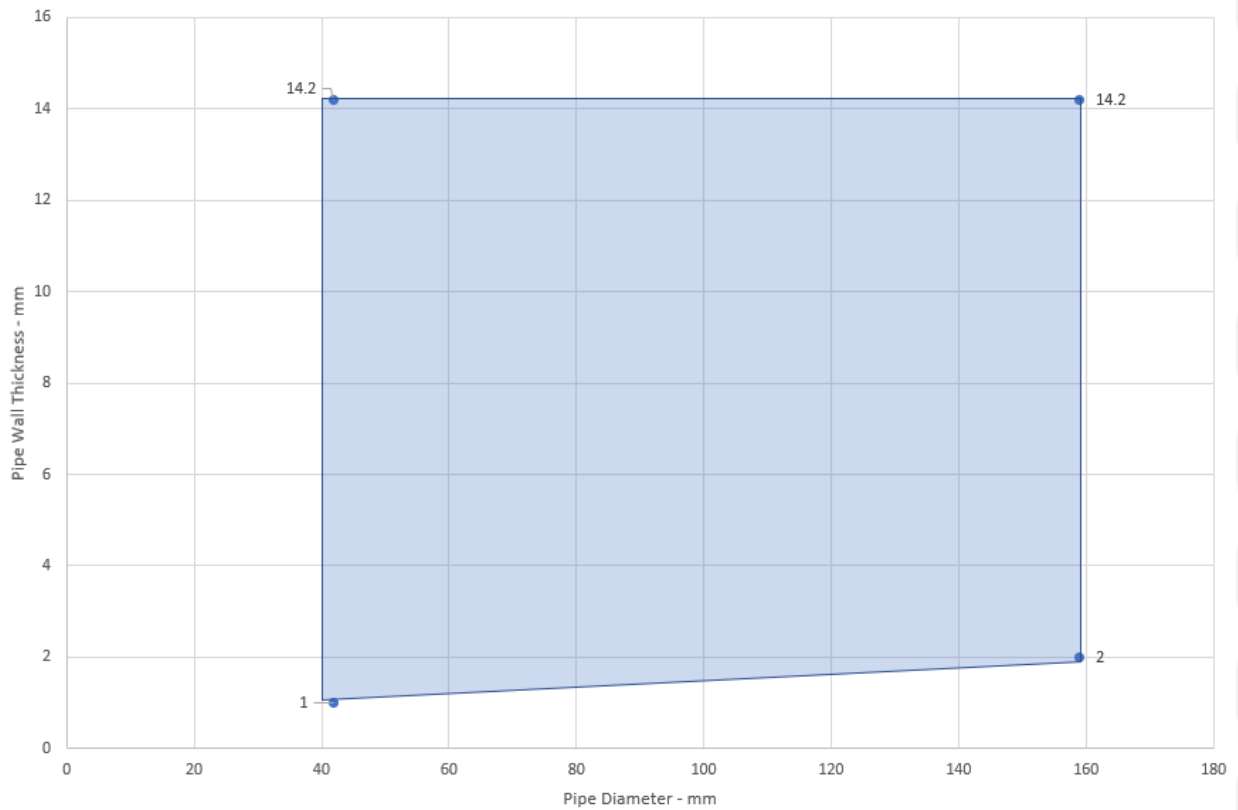
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Permitted Pipe Diameter vs Pipe Wall Thickness

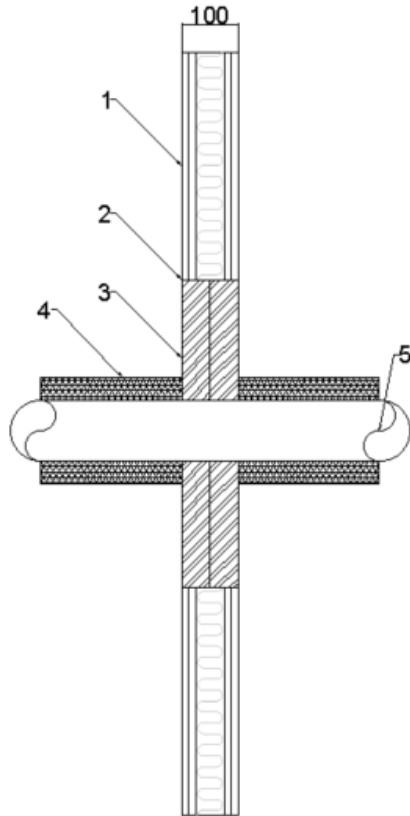


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Max Aperture 2600mm Wide x 2600mm High

(Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal)



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Insulation
5. Penetration Service

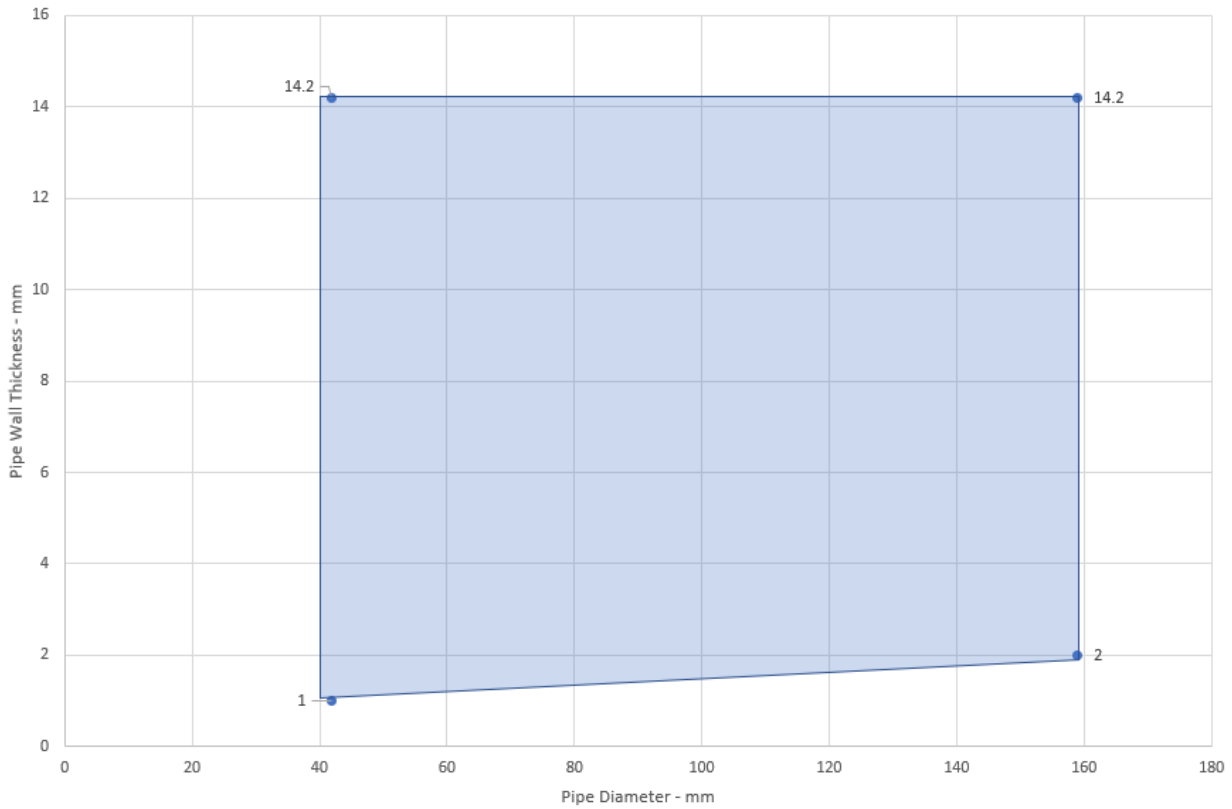
| Service(s) | Classification |
|--|-----------------------|
| Steel or Copper Pipe 42-159mm Ø, 1.0mm – 14.2mm wall thickness 40mm thick foil faced stonewool insulation min. 40kg/m ³ (L/I 400mm) | EI 45 C/U |
| Steel 42-324mm Ø, 16mm wall thickness. 40mm thick foil faced stonewool insulation min. 40kg/m ³ (L/I 400mm) | EI 45 C/U |
| Steel 42-324mm Ø, 16mm wall thickness. 40mm thick foil faced stonewool insulation min. 40kg/m ³ (C/I) | EI 60 C/U |
| Steel or Copper Pipe 42mm Ø, 1.2mm – 14.2mm wall thickness PROMASEAL® Fire Barrier Coating along the penetration 2mm DFT (L/I 300mm) | E 60 C/U EI 45 C/U |
| Steel or Copper Pipe 42-159mm Ø, 1.0mm – 14.2mm wall thickness PROMASEAL® Fire Barrier Coating along the penetration 2mm DFT (L/I 300mm) | E 60 C/U EI 20 C/U |
| Steel 42-324mm Ø, 16mm wall thickness. 14.2mm wall thickness PROMASEAL® Fire Barrier Coating along the penetration 2mm DFT (L/I 300mm) | E 60 C/U EI 45 C/U |



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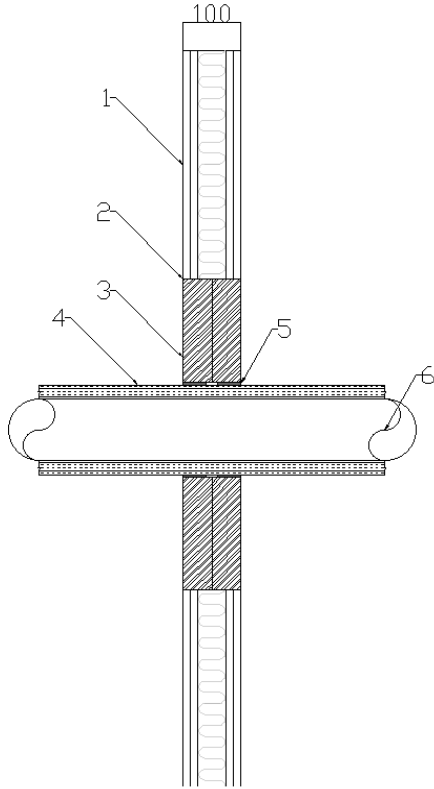
Permitted Pipe Diameter vs Pipe Wall Thickness



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Max Aperture 730mm Wide x 1200mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Insulation
5. PROMASEAL® Wrap
6. Penetration Service

| Service(s) | Classification |
|---|------------------------|
| ¹ Steel or Copper Pipe 42-159mm Ø, 1.2mm – 14.2mm wall thickness. 13-25mm thick K Flex ST ² Insulation (C/S) | E 120 C/U EI 60 C/U |
| ¹ Steel or Copper Pipe 42mm Ø, 1 – 14.2mm wall thickness. 25-13mm thick K Flex ST ² insulation (C/S) | E 120 C/U EI 90 C/U |
| ¹ Steel or Copper Pipe 42-108mm Ø, 1.2 – 14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM3 insulation (C/S) | E 120 C/U EI 60 C/U |
| ¹ Steel or Copper Pipe 42mm Ø, 1–14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM ³ insulation (C/S) | E 120 C/U EI 90 C/U |
| ¹ Steel or Copper Pipe 42mm Ø, 1.0–14.2mm wall thickness. 50mm thick glassfibre insulation (C/S) | E 120 C/U EI 90 C/U |

¹2 x 2mm thick layers of PROMASEAL® Wrap installed both sides of the PROMASEAL® Fire Barrier

²Or equivalent elastomeric pipe insulation classified BL – s2, d0 or better to EN 13501-1

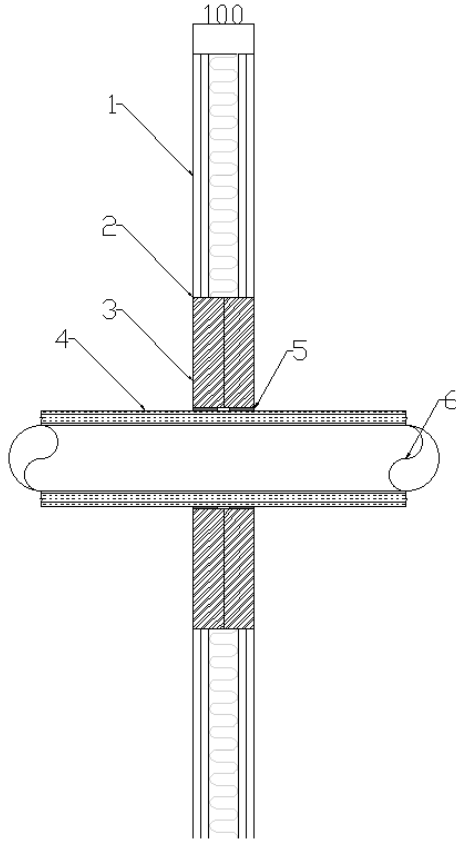
³Or equivalent Phenolic foam pipe insulation classified BL – s1, d0 or better to EN 13501-1



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Max Aperture 2600mm Wide x 2600mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Insulation
5. PROMASEAL® Wrap
6. Penetration Service

Service(s)

Classification

| | |
|---|-----------|
| ¹ Steel or Copper Pipe 42-159mm Ø, 1.2mm – 14.2mm wall thickness. 13-25mm thick K Flex ST ² Insulation (C/S) | EI 60 C/U |
| ¹ Steel or Copper Pipe 42mm Ø, 1 – 14.2mm wall thickness. 25-13mm thick K Flex ST ² insulation (C/S) | EI 60 C/U |
| ¹ Steel or Copper Pipe 42-108mm Ø, 1.2 – 14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM ³ insulation (C/S) | EI 60 C/U |
| ¹ Steel or Copper Pipe 42mm Ø, 1–14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM ³ insulation (C/S) | EI 60 C/U |
| ¹ Steel or Copper Pipe 42mm Ø, 1.2–14.2mm wall thickness. 50mm thick glassfibre insulation (C/S) | EI 60 C/U |

¹2 x 2mm thick layers of PROMASEAL® Wrap installed both sides of the PROMASEAL® Fire Barrier

²Or equivalent elastomeric pipe insulation classified BL – s2, d0 or better to EN 13501-1

³Or equivalent Phenolic foam pipe insulation classified BL – s1, d0 or better to EN 13501-1

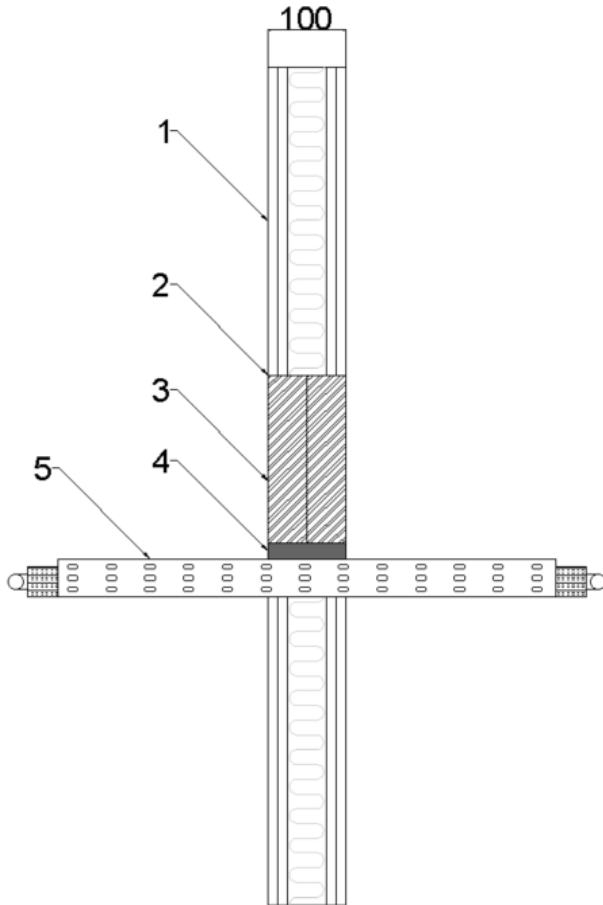


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Max Aperture 730mm Wide x 1200mm High

Zero distance to bottom of seal



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® HPEX Sealant
5. Penetration Service

Service(s)

Classification

¹ 6 off Steel or Copper Pipe 22mm Ø, 0.9mm – 14.2mm wall thickness. 19mm thick Armaflex² (L/S 400mm)

EI 90 C/U

¹500mm steel cable tray

E 90
EI 15

¹PROMASEAL® HPEX Sealant 20mm annulus full 50mm depth of the PROMASEAL® Fire Barrier

²Or equivalent elastomeric pipe insulation classified BL – s2, d0 or better to EN 13501-1

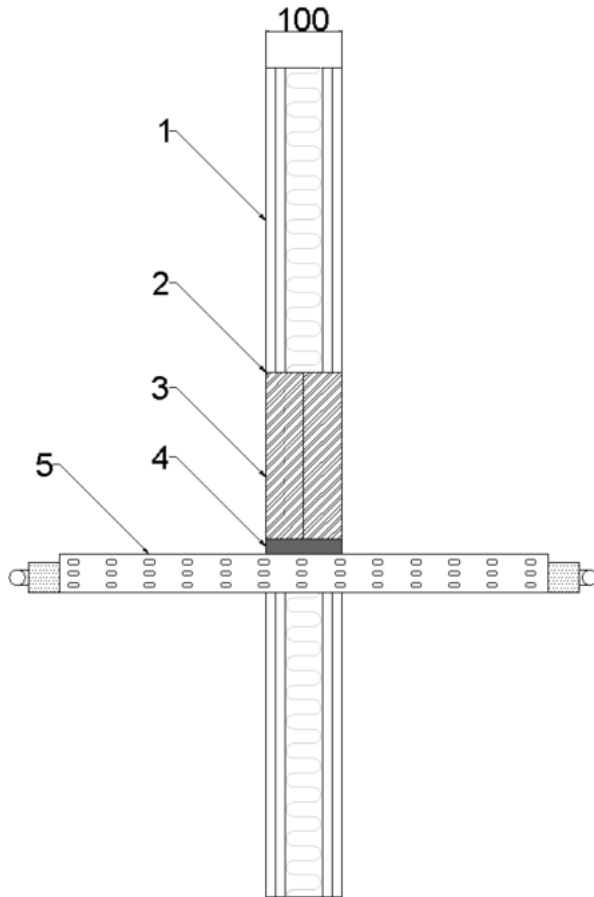


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Max Aperture 2600mm Wide x 2600mm High

Zero distance to bottom of seal



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® HPEX Sealant
5. Penetration Service

Service(s)

Classification

¹ 6 off Steel or Copper Pipe 22mm Ø, 0.9mm – 14.2mm wall thickness. 19mm thick Armaflex² (L/S 400mm)

EI 60 C/U

¹500mm steel cable tray

E 60
EI 15

¹PROMASEAL® HPEX Sealant 20mm annulus full 50mm depth of the PROMASEAL® Fire Barrier

²Or equivalent elastomeric pipe insulation classified BL – s2, d0 or better to EN 13501-1



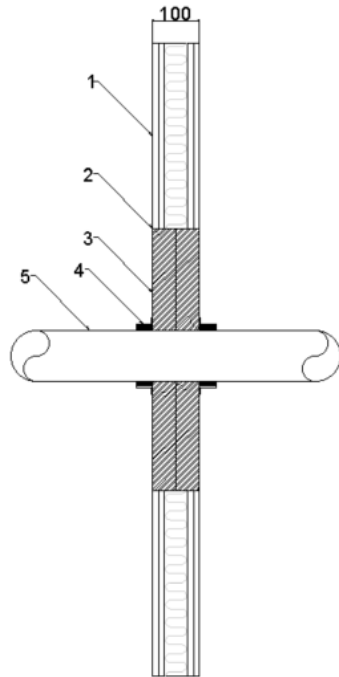
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Double Layer PROMASEAL® Fire Barrier 50mm, Plastic Pipes

Max Aperture 730mm Wide x 1200mm High

(Penetrations 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 utilising 80mm long steel pig tail screw through to PROMASEAL® Fire Barrier



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Penetration Service

| Service(s) | PROMASEAL® Collar 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 | |

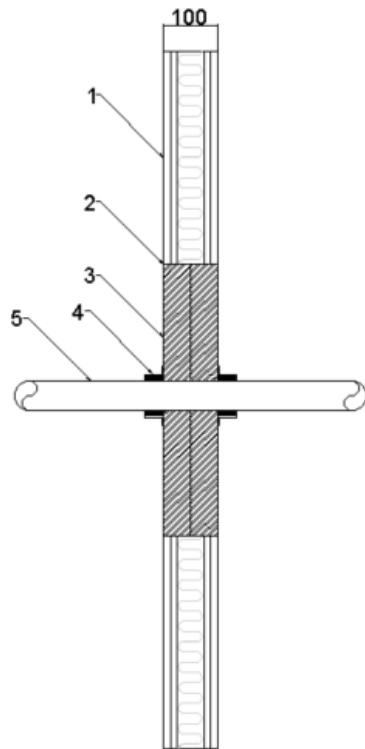


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Max Aperture 2600mm Wide x 2600mm High

(Penetrations 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 utilising 80mm long steel pig tail screw through to PROMASEAL® Fire Barrier



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Penetration Service

| Service(s) | PROMASEAL® Collar Ref | Classification |
|--|-----------------------|----------------|
| PVC Pipe 32mm Ø, 1.8mm wall thickness | 32mm | EI 60 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 | |

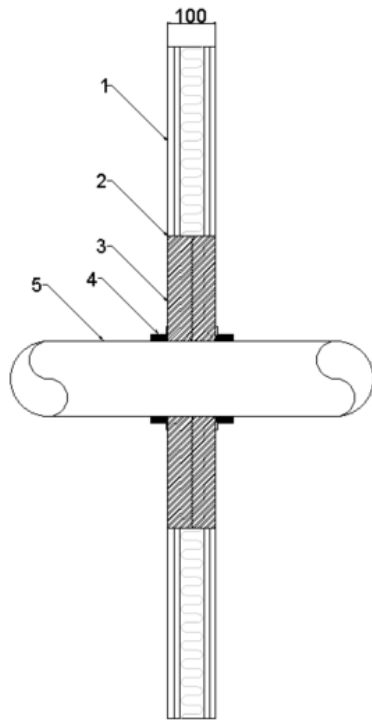


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Max Aperture 730mm Wide x 1200mm High

(Penetrations 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 utilising 80mm long steel pig tail screw through to PROMASEAL® Fire Barrier



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Penetration Service

| Service(s) | PROMASEAL® Collar Ref | Classification |
|--|-----------------------|----------------|
| PP Pipe 32mm Ø, 2.9mm wall thickness | 32mm | EI 120 U/C |
| 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 | |

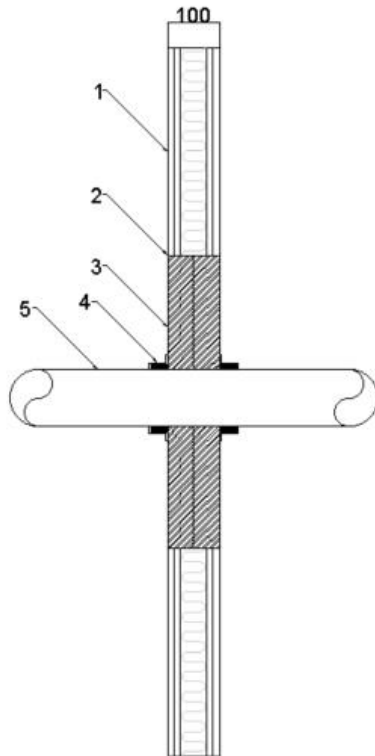


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Max Aperture 2600mm Wide x 2600mm High

(Penetrations 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 utilising 80mm long steel pig tail screw through to PROMASEAL® Fire Barrier



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Penetration Service

| Service(s) | PROMASEAL® Collar Ref | Classification |
|--|-----------------------|----------------|
| PP Pipe 32mm Ø, 2.9mm wall thickness | 32mm | EI 60 U/C |
| 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 | |

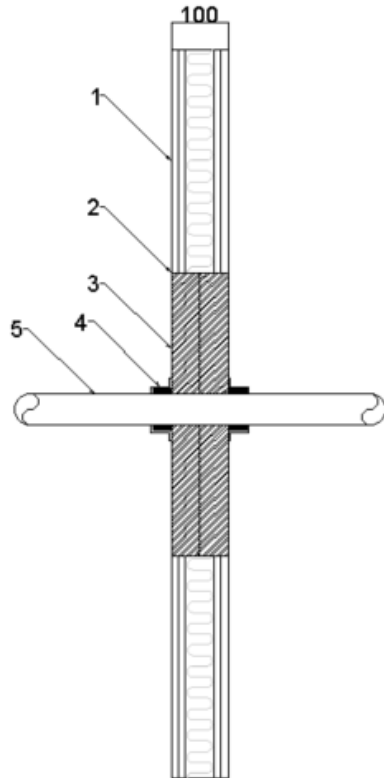


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Max Aperture 730mm Wide x 1200mm High

(Penetrations 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 utilising 80mm long steel pig tail screw through to PROMASEAL® Fire Barrier



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Penetration Service

| Service(s) | PROMASEAL® Collar Ref | Classification |
|---|-----------------------|----------------|
| PE Pipe 32mm Ø, 2.9mm wall thickness | 32mm | EI 120 U/C |
| 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 | |

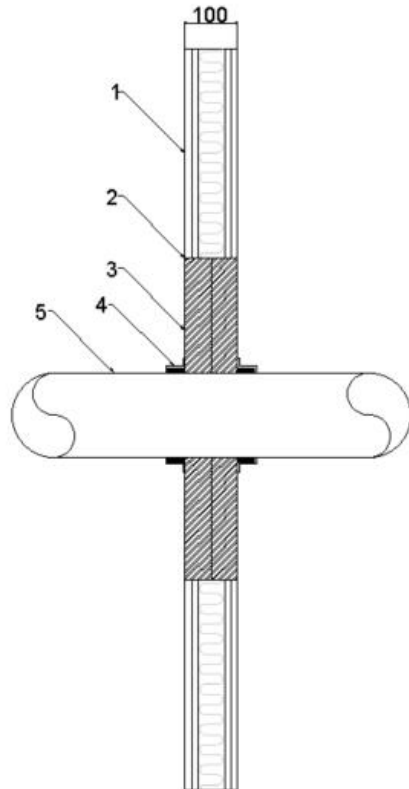


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Max Aperture 2600mm Wide x 2600mm High

(Penetrations 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 utilising 80mm long steel pig tail screw through to PROMASEAL® Fire Barrier



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Penetration Service

| Service(s) | PROMASEAL® Collar Ref | Classification |
|---|-----------------------|----------------|
| PE Pipe 32mm Ø, 2.9mm wall thickness | 32mm | EI 60 U/C |
| 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 | |

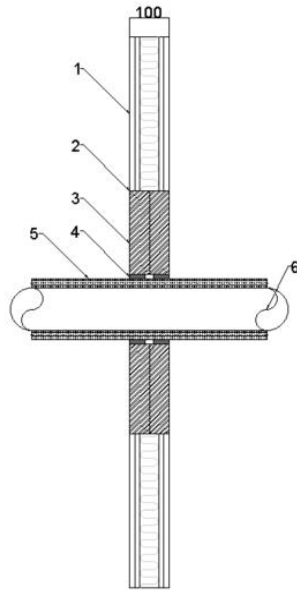


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Double Layer PROMASEAL® Fire Barrier 50mm, Insulated Plastic Pipes

Max Aperture 730mm Wide x 1200mm High
 (Penetrations positioned as per option 1 or 2 below, 100mm distance between services and 50mm to edge of seal)



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Wrap
5. Insulation
6. Penetration Service

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

¹PROMASEAL® Wrap secured internally within both faces of the PROMASEAL® Fire Barrier

²Or equivalent elastomeric pipe insulation classified BL – s2, d0 or better to EN 13501-1

³Or equivalent Phenolic foam pipe insulation classified BL – s1, d0 or better to EN 13501-1

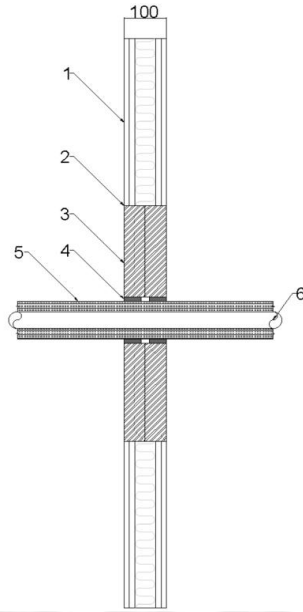


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Max Aperture 2600mm Wide x 2600mm High

(Penetrations positioned as per option 1 or 2 below, 100mm distance between services and 50mm to edge of seal)



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Wrap
5. Insulation
6. Penetration Service

| Service(s) | PROMASEAL® Wrap Ref | Classification |
|---|---------------------|----------------|
| PVC Pipe 40mm Ø, 1.9mm wall thickness. 25 mm thick Kingspan Kooltherm FM ³ insulation (C/S) | 3 x 2mm thickness | EI 60 U/C |
| PVC Pipe 40mm Ø, 3mm wall thickness. 15 mm thick Kingspan Kooltherm FM ³ insulation (C/S) | 3 x 2mm thickness | |
| PVC Pipe 110mm Ø, 4.2mm wall thickness. 25 mm thick Kingspan Kooltherm FM ³ insulation (C/S) | 5 x 2mm thickness | EI 60 U/C |
| PVC Pipe 110mm Ø, 6.6mm wall thickness. 20 mm thick Kingspan Kooltherm FM ³ insulation (C/S) | 5 x 2mm thickness | EI 60 U/C |
| PVC Pipe 40mm Ø, 1.9mm wall thickness. 32 mm thick Armacell Armaflex Class O ² (C/S) | 3 x 2mm thickness | EI 60 U/C |
| PVC Pipe 40mm Ø, 3mm wall thickness. 9 mm thick Armacell Armaflex Class O ² (C/S) | 3 x 2mm thickness | |
| PVC Pipe 110mm Ø, 4.2mm wall thickness. 32 mm thick Armacell Armaflex Class O ² (C/S) | 5 x 2mm thickness | EI 60 U/C |
| PVC Pipe 110mm Ø, 6.6mm wall thickness. 13 mm thick Armacell Armaflex Class O ² (C/S) | 5 x 2mm thickness | EI 60 U/C |

¹PROMASEAL® Wrap secured internally within both faces of the PROMASEAL® Fire Barrier

²Or equivalent elastomeric pipe insulation classified BL – s2, d0 or better to EN 13501-1

³Or equivalent Phenolic foam pipe insulation classified BL – s1, d0 or better to EN 13501-1

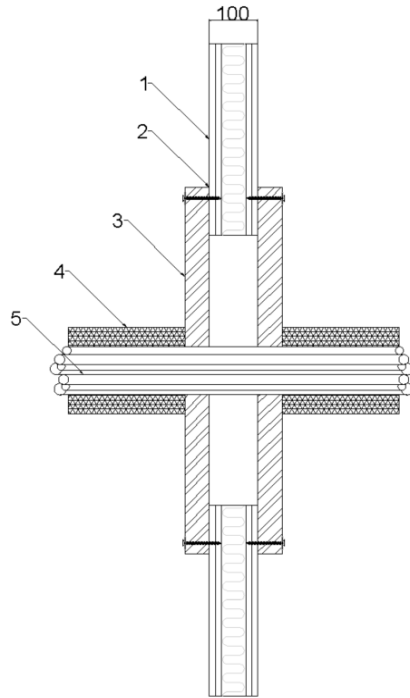


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Single Layer Pattress, PROMASEAL® Fire Barrier 50mm, Electrical Cables and Conduits

Max Aperture 730mm Wide x 1200mm High



- Key**
1. Supporting construction
 2. PROMASEAL® Intumescent Acrylic Sealant
 3. PROMASEAL® Fire Barrier
 4. Insulation
 5. Penetration Service

| Service(s) | Classification |
|--|----------------|
| ² Electrical cables up to 80mm Ø | EI 120 |
| ² Cable Trays and Ladders | |
| ² 100 mm diameter bundle telecommunication cable type “F” | |
| ² Unsheathed electrical cables up to 24mm Ø | |
| ² Steel or Copper Conduits up to 16mm Ø | |
| ² Plastic conduits up to 16mm Ø | |

¹Pattress installation of PROMASEAL® Fire Barrier. 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 centres

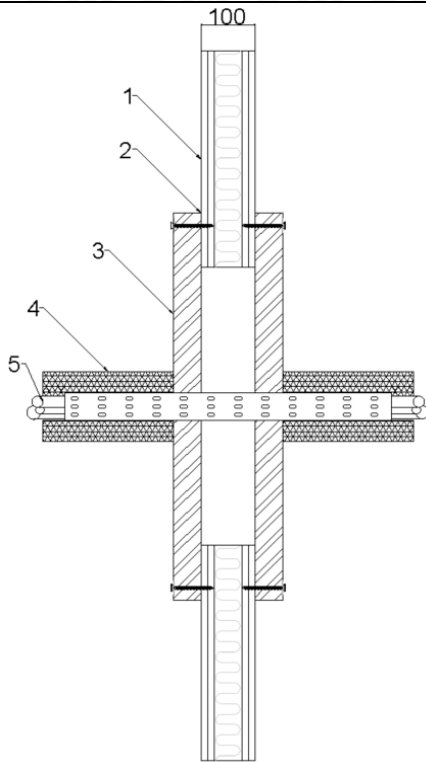
²Cables and cable trays wrapped with a single layer of 40mm thick, 40kg/m³ Stonewool (L/I 300mm)



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Max Aperture 2600mm Wide x 2600mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Insulation
5. Penetration Service

Service(s)

Classification

²Electrical cables upto 80mm Ø

²Cable Trays and Ladders

²100 mm diameter bundle telecommunication cable type “F”

²Unsheathed electrical cables up to 24mm Ø

²Steel or Copper Conduits up to 16mm Ø

²Plastic conduits up to 16mm Ø

EI 60

¹Pattern installation of PROMASEAL® Fire Barrier. 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 centres

²Cables and cable trays wrapped with a single layer of 40mm thick, 40kg/m³ Stonewool (L/I 300mm)



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Single Layer Pattress, PROMASEAL® Fire Barrier 50mm, Insulated Metallic Pipes

| Max Aperture 730mm Wide x 1200mm High | |
|---|--|
| | Key 1. Supporting construction 2. PROMASEAL® Intumescent Acrylic Sealant 3. PROMASEAL® Fire Barrier 4. PROMASEAL® Wrap 5. Insulation 6. Penetration Service |
| Service(s) | Classification |
| ² Steel or Copper Pipe 42-159mm Ø, 1.2mm – 14.2mm wall thickness. 13-25mm thick K Flex ST ³ Insulation (C/S) | E 120 C/U EI 60 C/U |
| ² Steel or Copper Pipe 42mm Ø, 1.2 – 14.2mm wall thickness. 13-25mm thick K Flex ST ³ insulation (C/S) | E 120 C/U EI 90 C/U |
| ² Steel or Copper Pipe 42-108mm Ø, 1.2 – 14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM ⁴ insulation (C/S) | E 120 C/U EI 60 C/U |
| ² Steel or Copper Pipe 42mm Ø, 1.2–14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM ⁴ insulation (C/S) | E 120 C/U EI 90 C/U |
| ² Steel or Copper Pipe 42mm Ø, 1.2–14.2mm wall thickness. 50mm thick glassfibre insulation min. 30kg/m ³ (C/S) | E 120 C/U EI 90 C/U |

¹Pattress installation of PROMASEAL® Fire Barrier. 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 centres.

² 2 x 2mm thick layers of PROMASEAL® Wrap installed both sides of the substrate within the Pattress installation

³ Or equivalent elastomeric pipe insulation classified BL – s2, d0 or better to EN 13501-1

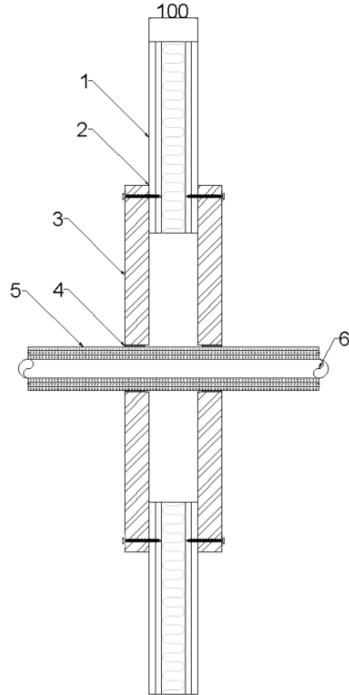
⁴ Or equivalent Phenolic foam pipe insulation classified BL – s1, d0 or better to EN 13501-1



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Max Aperture 2600mm Wide x 2600mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Wrap
5. Insulation
6. Penetration Service

| Service(s) | Classification |
|---|----------------|
| ² Steel or Copper Pipe 42-159mm Ø, 1.2mm – 14.2mm wall thickness. 13-25mm thick K Flex ST ³ Insulation (C/S) | EI 60 C/U |
| ² Steel or Copper Pipe 42-159mm Ø, 1.2 – 14.2mm wall thickness. 25mm thick K Flex ST ³ insulation (C/S) | |
| ² Steel or Copper Pipe 42mm Ø, 1 – 14.2mm wall thickness. 25-13mm thick K Flex ST ³ insulation (C/S) | |
| ² Steel or Copper Pipe 42-108mm Ø, 1.2 – 14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM ⁴ insulation (C/S) | |
| ² Steel or Copper Pipe 42mm Ø, 1-14.2mm wall thickness. 25 -40mm thick Kingspan Kooltherm FM ⁴ insulation (C/S) | |
| ² Steel or Copper Pipe 42mm Ø, 1.2-14.2mm wall thickness. 50mm thick glassfibre insulation min. 30kg/m ³ (C/S) | |

¹Pattress installation of PROMASEAL® Fire Barrier. 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 centres.

² 2 x 2mm thick layers of PROMASEAL® Wrap installed both sides of the substrate within the Pattress installation

³Or equivalent elastomeric pipe insulation classified BL – s2, d0 or better to EN 13501-1

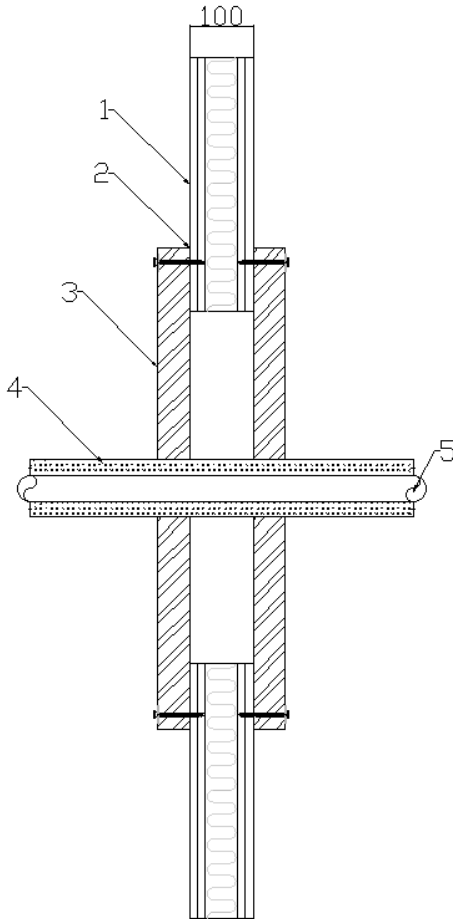
⁴Or equivalent Phenolic foam pipe insulation classified BL – s1, d0 or better to EN 13501-1



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Max Aperture 730mm Wide x 1200mm High



- Key
1. Supporting construction
 2. PROMASEAL® Intumescent Acrylic Sealant
 3. PROMASEAL® Fire Barrier
 4. Insulation
 5. Penetration Service

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

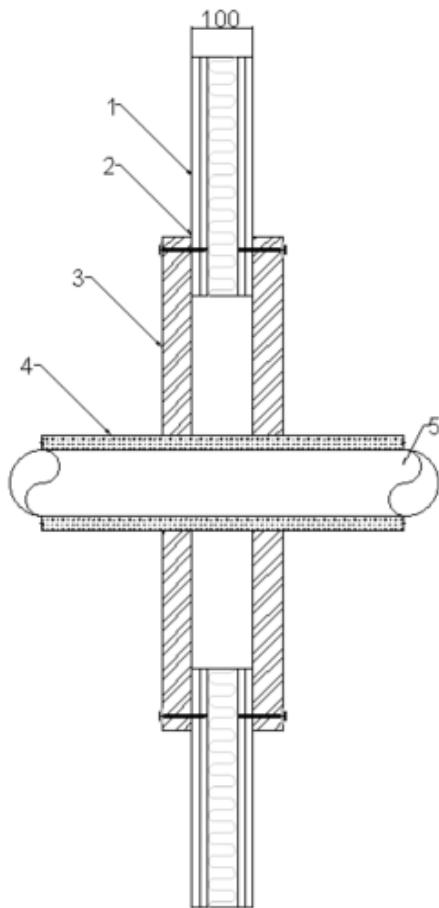
¹Pattress installation of PROMASEAL® Fire Barrier. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centres.



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Max Aperture 2600mm Wide x 2600mm High



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. Insulation
5. Penetration Service

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

¹Pattress installation of PROMASEAL® Fire Barrier. 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 centres.

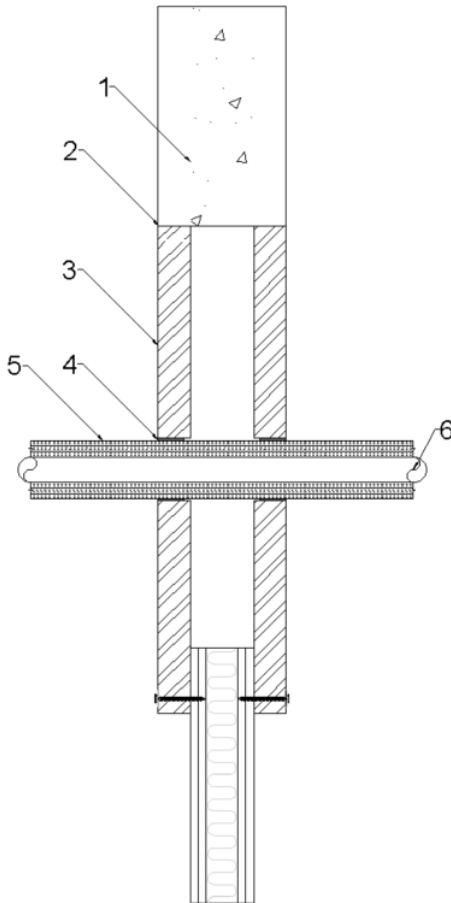


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Max Aperture 730mm Wide x 1200mm High

30mm overlap Pattress installed flush to soffit



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Wrap
5. Insulation
6. Penetration Service

Service(s)

Classification

Steel or Copper Pipe 42mm Ø, 1.0mm – 14.2mm wall thickness. 50mm thick Kingspan³ (C/S 400mm)

EI 60 C/U

¹Pattress installation of PROMASEAL® Fire Barrier. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 30mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centres. No fixing is applied to the head flush to the soffit

²2 x 2mm thick layers of PROMASEAL® Wrap installed both sides of the substrate within the Pattress installation

³Or equivalent Phenolic foam pipe insulation classified BL – s1, d0 or better to EN 13501-1

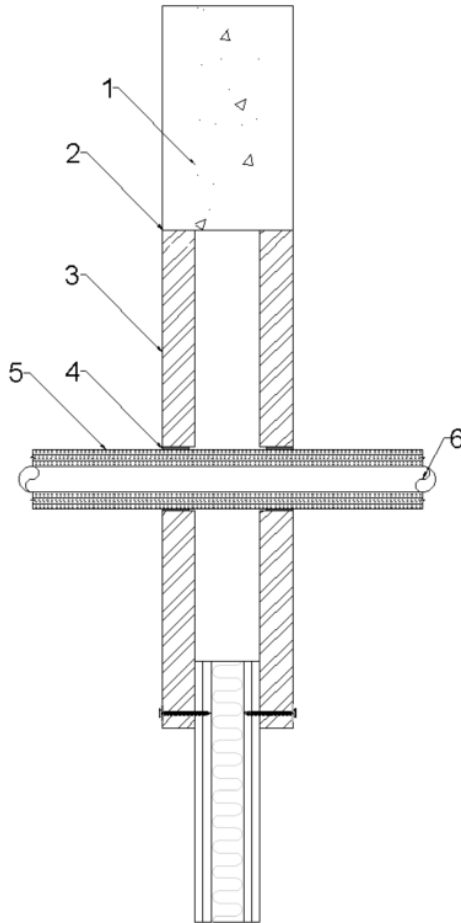


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Max Aperture 2600mm Wide x 2600mm High

30mm overlap Pattress installed flush to soffit



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Wrap
5. Insulation
6. Penetration Service

Service(s)

Classification

Steel or Copper Pipe 42mm Ø, 1.0mm – 14.2mm wall thickness. 50mm thick Kingspan³ (C/S 400mm)

EI 60 C/U

¹Pattress installation of PROMASEAL® Fire Barrier. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 30mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centres. No fixing is applied to the head flush to the soffit

² 2 x 2mm thick layers of PROMASEAL® Wrap installed both sides of the substrate within the Pattress installation

³ Or equivalent Phenolic foam pipe insulation classified BL – s1, d0 or better to EN 13501-1



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Single Layer Pattress, PROMASEAL® Fire Barrier 50mm, Plastic Pipes

| Max Aperture 2600mm Wide x 2600mm High (Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal) | | |
|---|---|------------------|
| | Key 1. Supporting construction 2. PROMASEAL® Intumescent Acrylic Sealant 3. PROMASEAL® Fire Barrier 4. PROMASEAL® Collar 5. Penetration Service | |
| Service(s) | PROMASEAL® Collar Ref | Classification |
| PVC Pipe 32mm Ø, 1.8mm wall thickness | 32mm | EI 60 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 | |

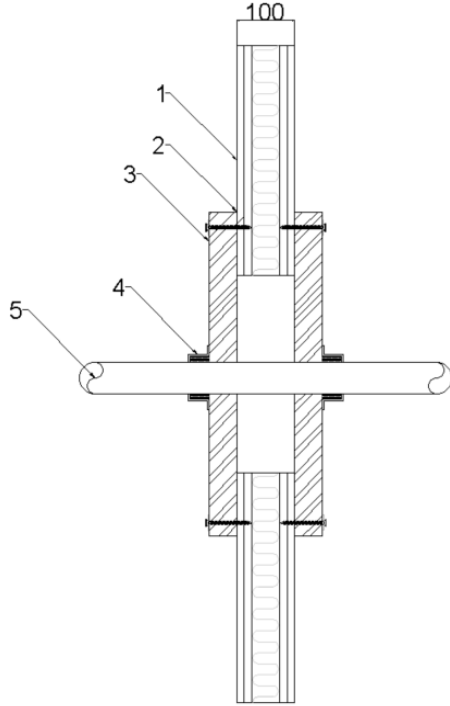
Collars secured both faces of the substrate utilising 80mm long pig tail screw through to the PROMASEAL® Fire Barrier Pattress installation of PROMASEAL® Fire Barrier. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centres.



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Max Aperture 730mm Wide x 1200mm High
 (Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal)



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Penetration Service

| Service(s) | PROMASEAL® Collar 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 | |

Collars secured both faces of the substrate utilising 80mm long pig tail screw through to the PROMASEAL® Fire Barrier
¹Pattress installation of PROMASEAL® Fire Barrier. 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 centres.

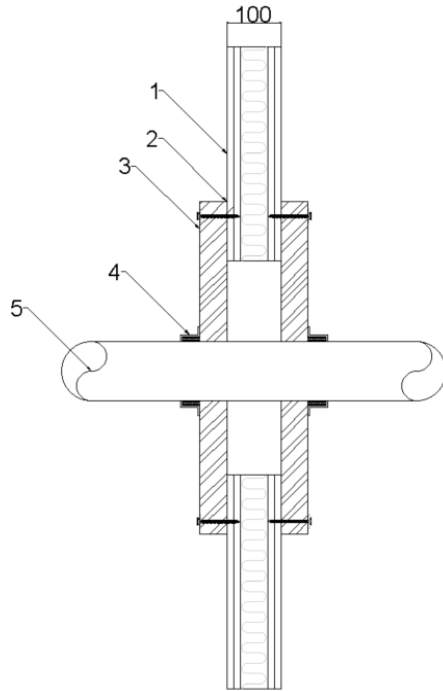


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Max Aperture 730mm Wide x 1200mm High

(Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal)



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Penetration Service

| Service(s) | PROMASEAL® Collar Ref | Classification |
|--|-----------------------|----------------|
| PP Pipe 32mm Ø, 2.9mm wall thickness | 32mm | EI 120 U/C |
| 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 | |

Collars secured both faces of the substrate utilising 80mm long pig tail screw through to the PROMASEAL® Fire Barrier
¹Pattress installation of PROMASEAL® Fire Barrier. 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 centres.

27-CP-F0855 Issue: 3.1

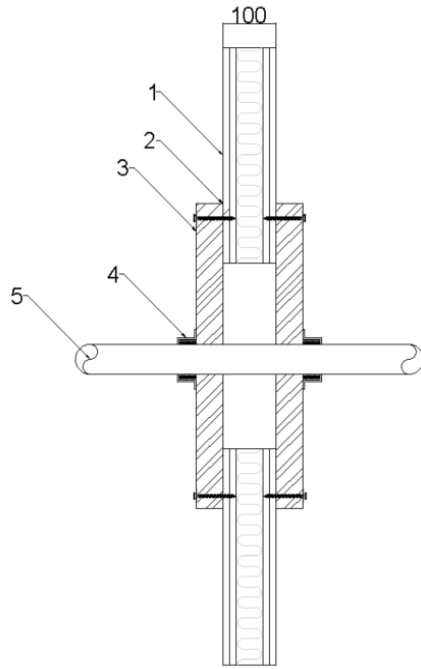


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Max Aperture 2600mm Wide x 2600mm High

(Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal)



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Penetration Service

| Service(s) | PROMASEAL® Collar Ref | Classification |
|--|-----------------------|----------------|
| PP Pipe 32mm Ø, 2.9mm wall thickness | 32mm | EI 60 U/C |
| 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 | |

Collars secured both faces of the substrate utilising 80mm long pig tail screw through to the PROMASEAL® Fire Barrier
 1) Pattern installation of PROMASEAL® Fire Barrier. 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 centres.

27-CP-F0855 Issue: 3.1

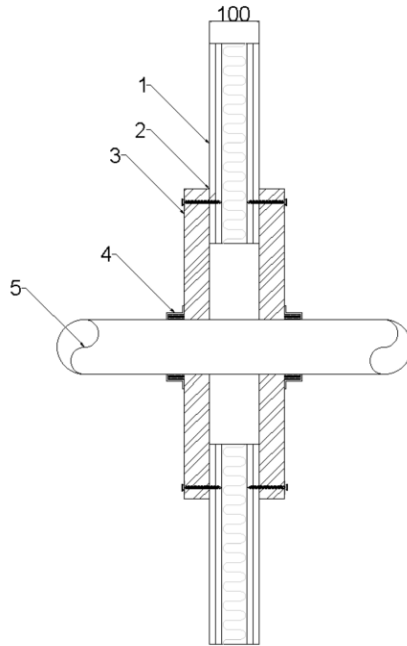


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Max Aperture 730mm Wide x 1200mm High

(Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal)



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Penetration Service

| Service(s) | PROMASEAL® Collar Ref | Classification |
|---|-----------------------|----------------|
| PE Pipe 32mm Ø, 2.9mm wall thickness | 32mm | EI 120 U/C |
| 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 | |

Collars secured both faces of the substrate utilising 80mm long pig tail screw through to the PROMASEAL® Fire Barrier
¹Pattress installation of PROMASEAL® Fire Barrier. 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 centres.

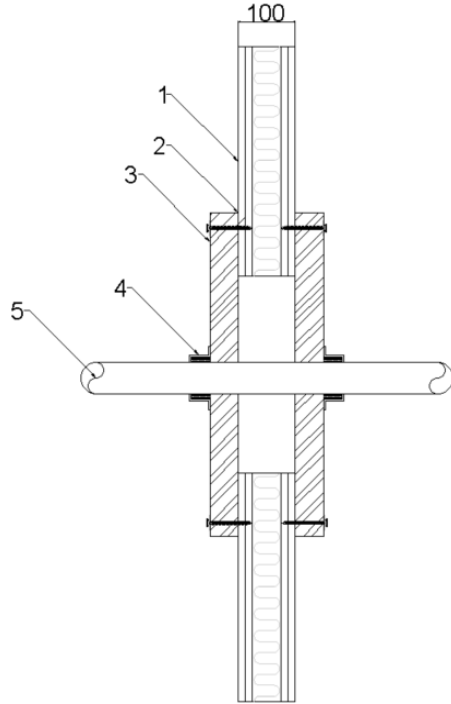


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Max Aperture 2600mm Wide x 2600mm High

(Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal)



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Penetration Service

| Service(s) | PROMASEAL® Collar Ref | Classification |
|---|-----------------------|----------------|
| PE Pipe 32mm Ø, 2.9mm wall thickness | 32mm | EI 60 U/C |
| 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 | |

Collars secured both faces of the substrate utilising 80mm long pig tail screw through to the PROMASEAL® Fire Barrier
¹Pattress installation of PROMASEAL® Fire Barrier. 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 centres.

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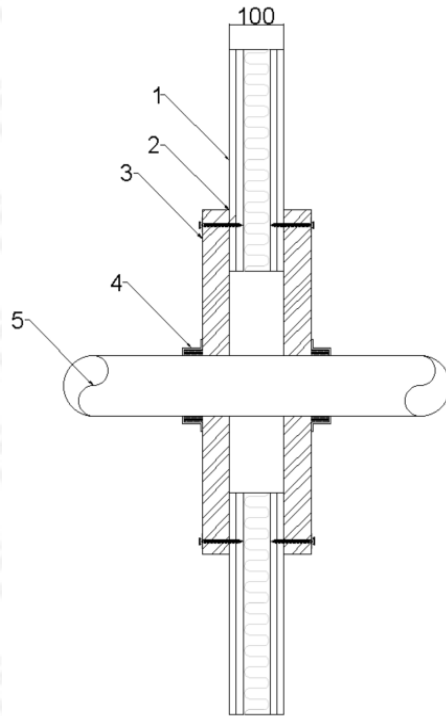


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Max Aperture 2600mm Wide x 2600mm High

(Penetrations positioned as per option 1 or 2 below, 0mm distance between services and 50mm to edge of seal)



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Collar
5. Penetration Service

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) |

Wrap secured internally within both faces of the PROMASEAL® Fire Barrier

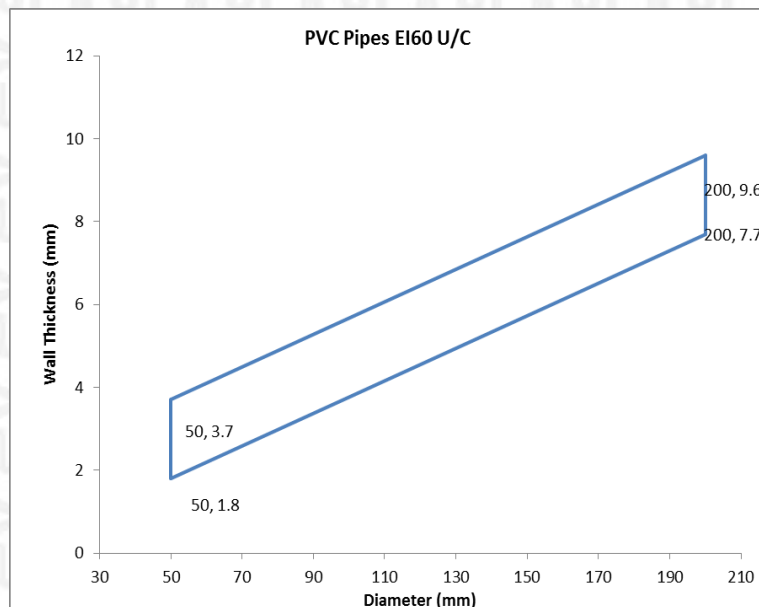
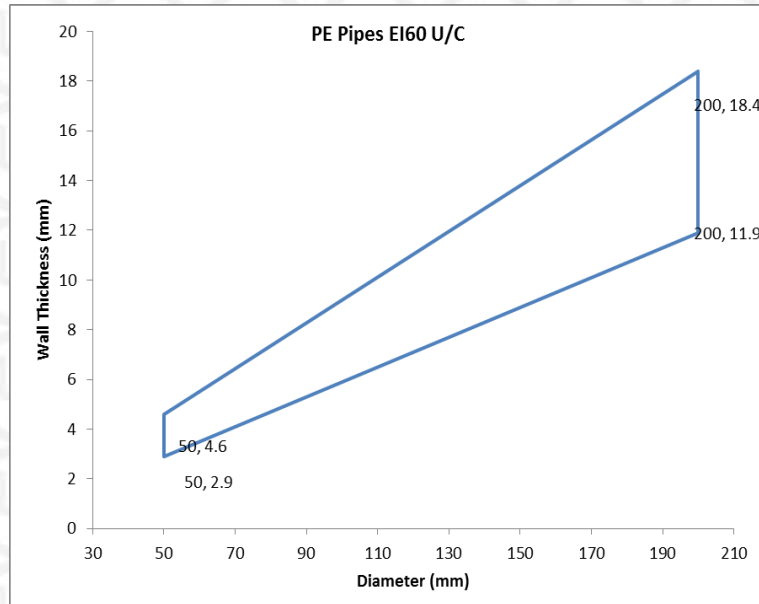
¹Pattern installation of PROMASEAL® Fire Barrier. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 100mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centres.

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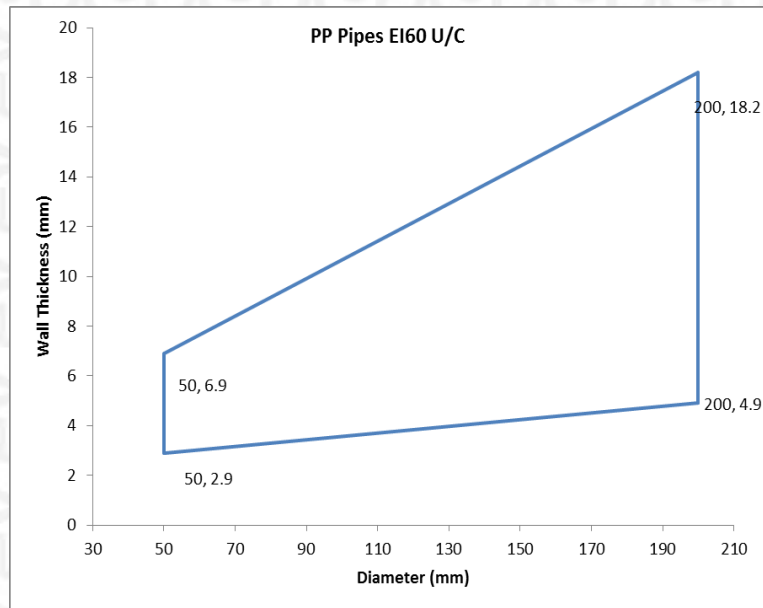
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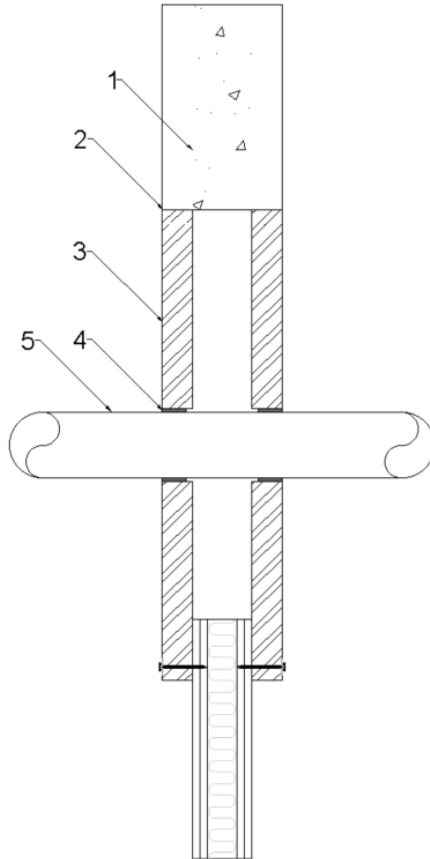


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Max Aperture 2600mm Wide x 2600mm High

30mm overlap Pattress installed flush to soffit



Key

1. Supporting construction
2. PROMASEAL® Intumescent Acrylic Sealant
3. PROMASEAL® Fire Barrier
4. PROMASEAL® Wrap
5. Penetration Service

Service(s)

Classification

PVC Pipe 110mm Ø, 4.2mm wall thickness

EI 60 C/U

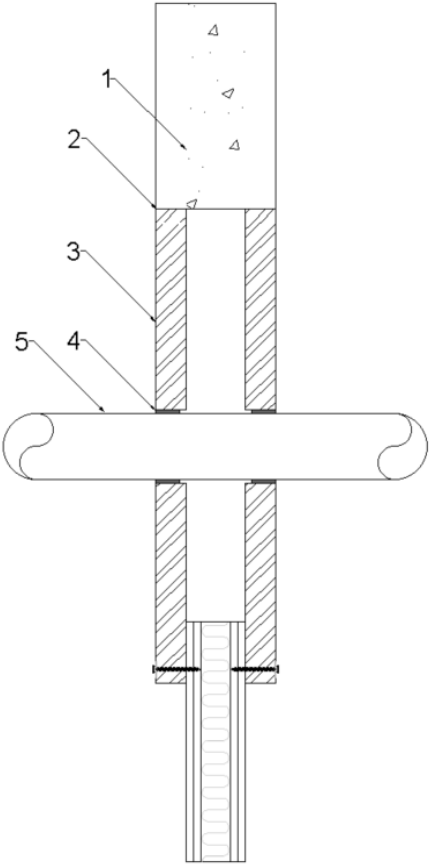
¹Pattress installation of PROMASEAL® Fire Barrier. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 30mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centres. No fixing is applied to the head flush to the soffit
²4 x 2mm thick layers of PROMASEAL® Wrap installed both sides of the substrate within the Pattress installation

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| Max Aperture 2600mm Wide x 2600mm High | |
|--|---|
| <p style="text-align: center;">30mm overlap Pattress installed flush to soffit</p>  | <p><u>Key</u></p> <ol style="list-style-type: none"> 1. Supporting construction 2. PROMASEAL® Intumescent Acrylic Sealant 3. PROMASEAL® Fire Barrier 4. PROMASEAL® Wrap 5. Penetration Service |
| Service(s) | Classification |
| PVC Pipe 110mm Ø, 4.2mm wall thickness | EI 60 C/U |

¹Pattress installation of PROMASEAL® Fire Barrier. The Batts are installed in horizontal rows and fixed in minimum two vertical edges. Overlap of batts to substrate min 30mm. Batts mechanically fixed to substrate with min 6mm x 80mm steel screws and steel retaining washer. Fixings installed at max 300mm centres. No fixing is applied to the head flush to the soffit
²4 x 2mm thick layers of PROMASEAL® Wrap installed both sides of the substrate within the Pattress installation



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Rigid Floors Minimum Thickness 150mm

Double Layer, PROMASEAL® Fire Barrier 50mm, Electrical Cables

Max Aperture 1100mm Wide x 1500mm Long

| | |
|--|---|
| | <p>Key</p> <ol style="list-style-type: none"> 1. Supporting construction 2. PROMASEAL® Fire Barrier 3. PROMASEAL® HPEX Sealant 4. PROMASEAL® Fire Barrier Coating 5. Penetration Service 6. PROMASEAL® Intumescent Acrylic Sealant |
| <p>Penetration Specification</p> | <p>Classification</p> |
| <p>*500mm perforated cable tray</p> | |
| <p>*Electrical cables up to 21mm ϕ</p> | |
| <p>*1 off 'C1' Cable</p> | <p>EI 60</p> |
| <p>*1 off 'C2' Cable</p> | |
| <p>*1 off 'C3' Cable</p> | |

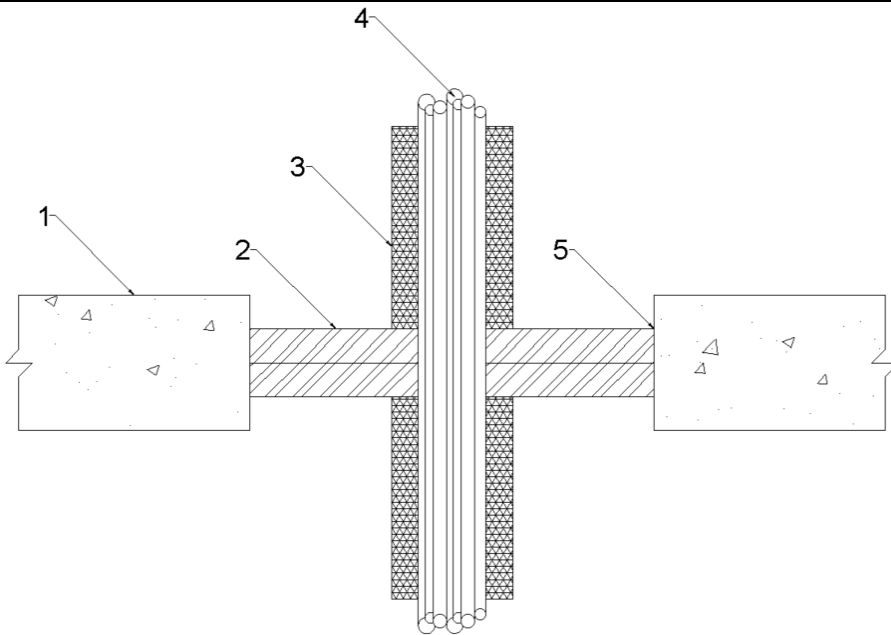
*All cables coated with 2mm DFT PROMASEAL® Fire Barrier Coating 300mm along the cables upper side of the seal PROMASEAL® HPEX Sealant 20mm annulus full 50mm depth of the PROMASEAL® Fire Barrier



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Max Aperture 1100mm Wide x 1500mm Long



- Key**
1. Supporting construction
 2. PROMASEAL® Fire Barrier
 3. Insulation
 4. Penetration Service
 5. PROMASEAL® Intumescent Acrylic Sealant

| Service(s) | Classification |
|--|----------------|
| ¹ Electrical cables upto 80mm dia | EI 60 |
| ¹ Cable Trays and Ladders | |
| ¹ 100 mm diameter bundle telecommunication cable type "F" | |
| ¹ Unsheathed electrical cables up to 17mm dia | |
| ¹ Unsheathed electrical cables 18-24mm dia | |
| ¹ Steel or Copper Conduits up to 16mm | |
| ¹ Plastic conduits up to 16mm | |

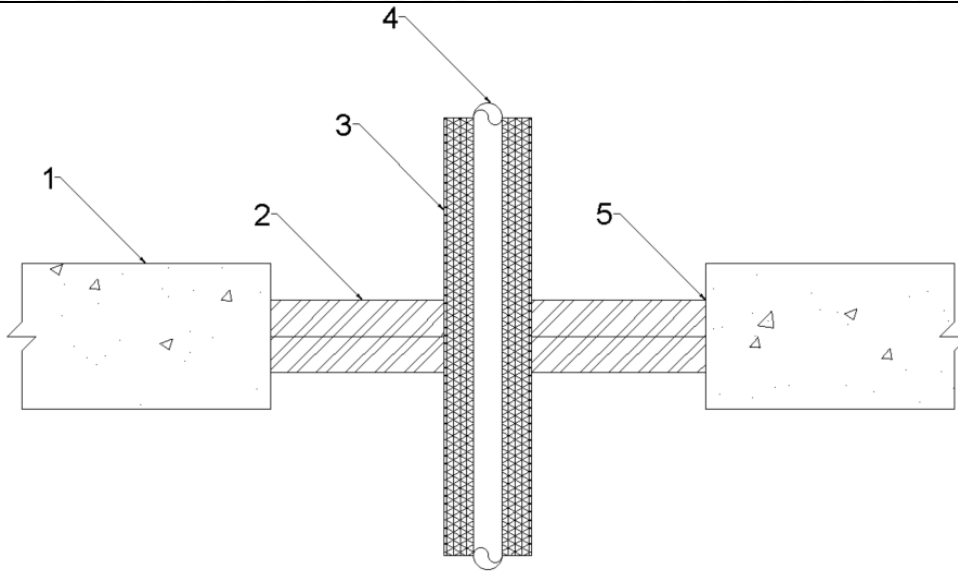
¹Cables and cable trays wrapped with a single layer of 40mm thick stonewool, min 40kg/m³ (L/I 300mm)



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Max Aperture 700mm Wide x 1100mm Long



- Key**
1. Supporting construction
 2. PROMASEAL® Fire Barrier
 3. Insulation
 4. Penetration Service
 5. PROMASEAL® Intumescent Acrylic Sealant

Service(s)

Classification

Steel or Copper Pipe 42mm Ø, 1.2mm – 14.2mm wall thickness. (L/I 300mm) 40mm stone wool insulation (min 40Kg/m³)

EI 120 C/U

Steel or Copper Pipe 42mm – 159mm Ø, 2mm – 14.2mm wall thickness. (L/I 300mm) 40mm stone wool insulation (min 40Kg/m³)

E 120 C/U
 EI 30 C/U



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Double Layer, PROMASEAL® Fire Barrier 50mm, Insulated Metallic Pipes

| Max Aperture 1100mm Wide x 1500mm Long | |
|---|--|
| | <p><u>Key</u></p> <ol style="list-style-type: none"> 1. Supporting construction 2. PROMASEAL® Fire Barrier 3. Insulation 4. Penetration Service 5. PROMASEAL® Intumescent Acrylic Sealant |
| 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 ³) | E 90 C/U EI 60 C/U |
| Steel or Copper Pipe 42mm – 159mm Ø, 2mm – 14.2mm wall thickness. (L/I 300mm) 40mm stone wool insulation (min 40Kg/m ³) | E 90 C/U EI 30 C/U |

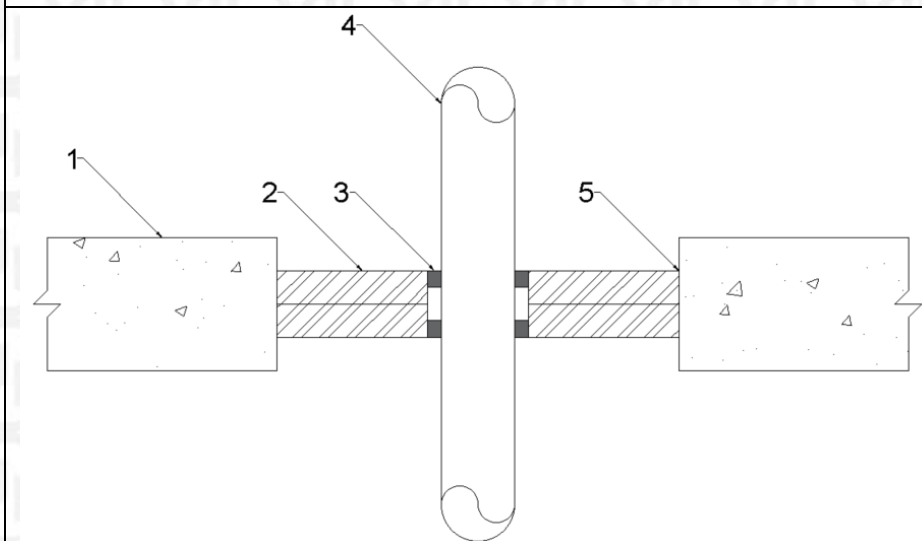


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Double Layer, PROMASEAL® Fire Barrier 50mm, Plastic Pipes

Max Aperture 750mm Wide x 1100mm Long



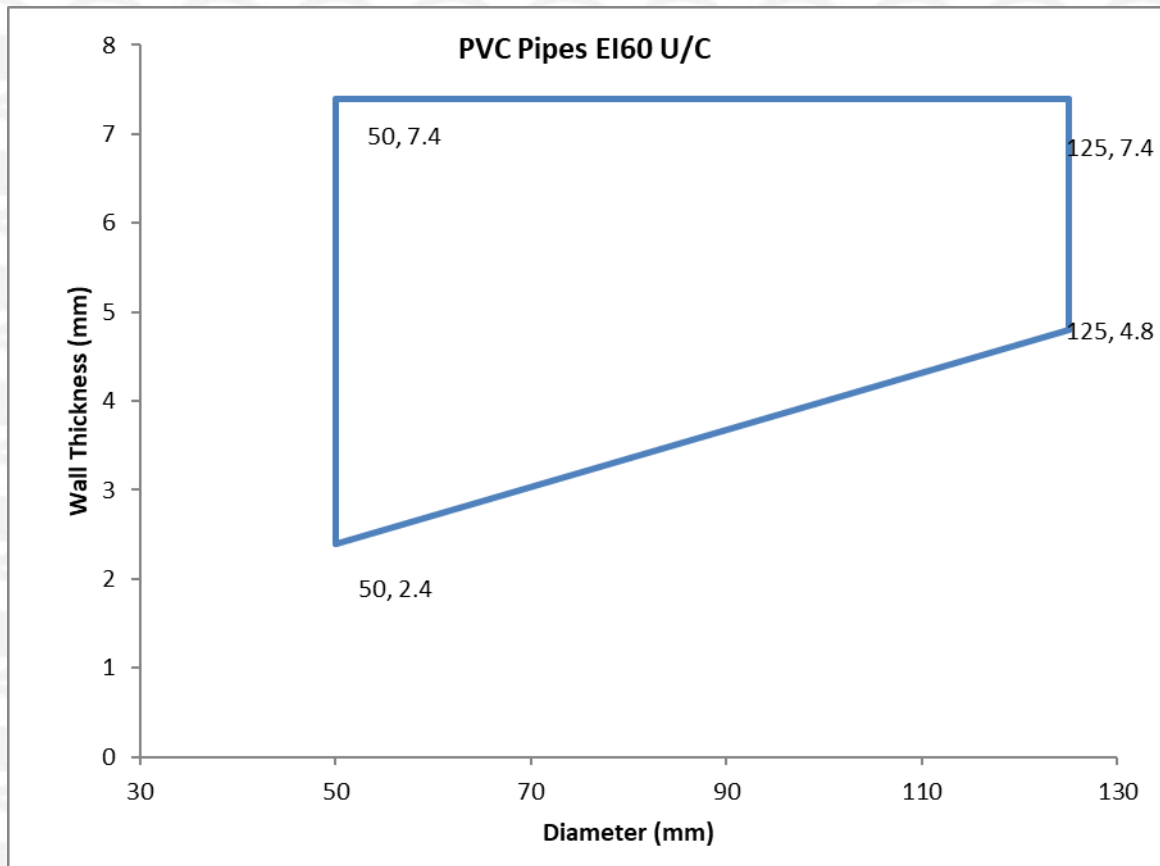
- Key
1. Supporting construction
 2. PROMASEAL® Fire Barrier
 3. PROMASEAL® HPEX Sealant
 4. Penetration Service
 5. PROMASEAL® Intumescent Acrylic Sealant

| Penetration Specification | PROMASEAL® HPEX Sealant | Classification |
|---------------------------|---|------------------|
| Pipe Diameters as below | 20mm annulus, 25mm deep both faces of the PROMASEAL® Fire Barrier | See graphs below |



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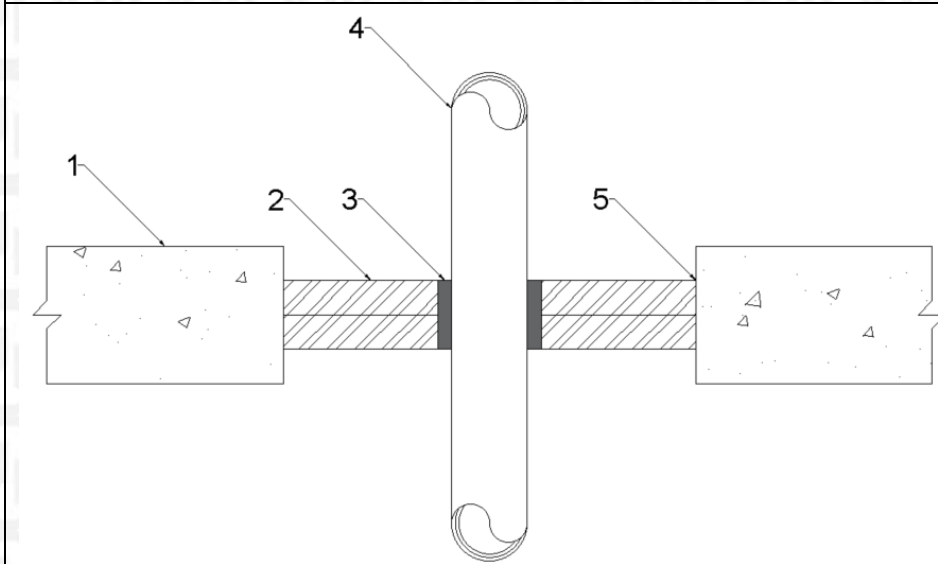
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Max Aperture 750mm Wide x 1100mm Long



Key

1. Supporting construction
2. PROMASEAL® Fire Barrier
3. PROMASEAL® HPEX Sealant
4. Penetration Service
5. PROMASEAL® Intumescent Acrylic Sealant

Penetration Specification

Classification

| | |
|---|-----------|
| Uponor MLC (Multi-Layer Composite) Pipe 40mm ø 4mm wall thickness | EI 60 U/C |
| 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 | |

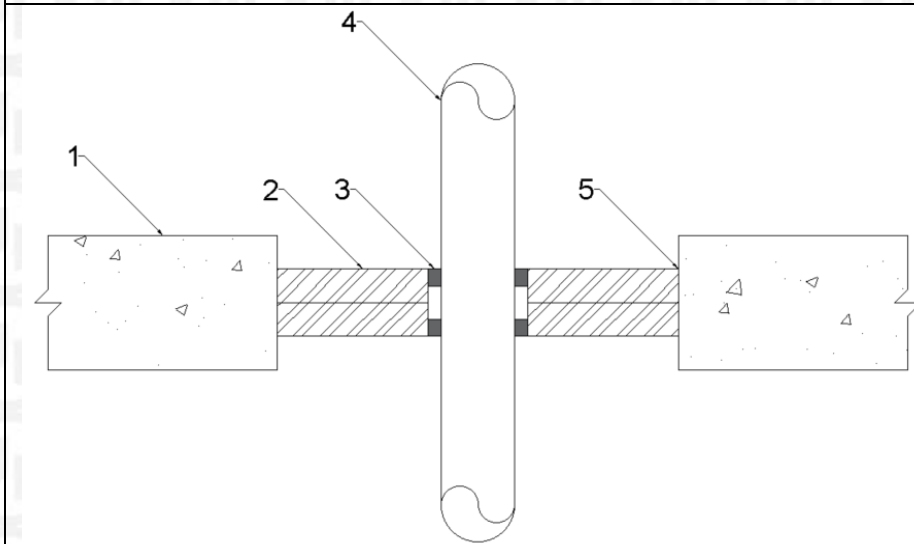
PROMASEAL® HPEX Sealant 20mm annulus full 50mm depth of the PROMASEAL® Fire Barrier



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Max Aperture 1100mm Wide x 1500mm Long



Key

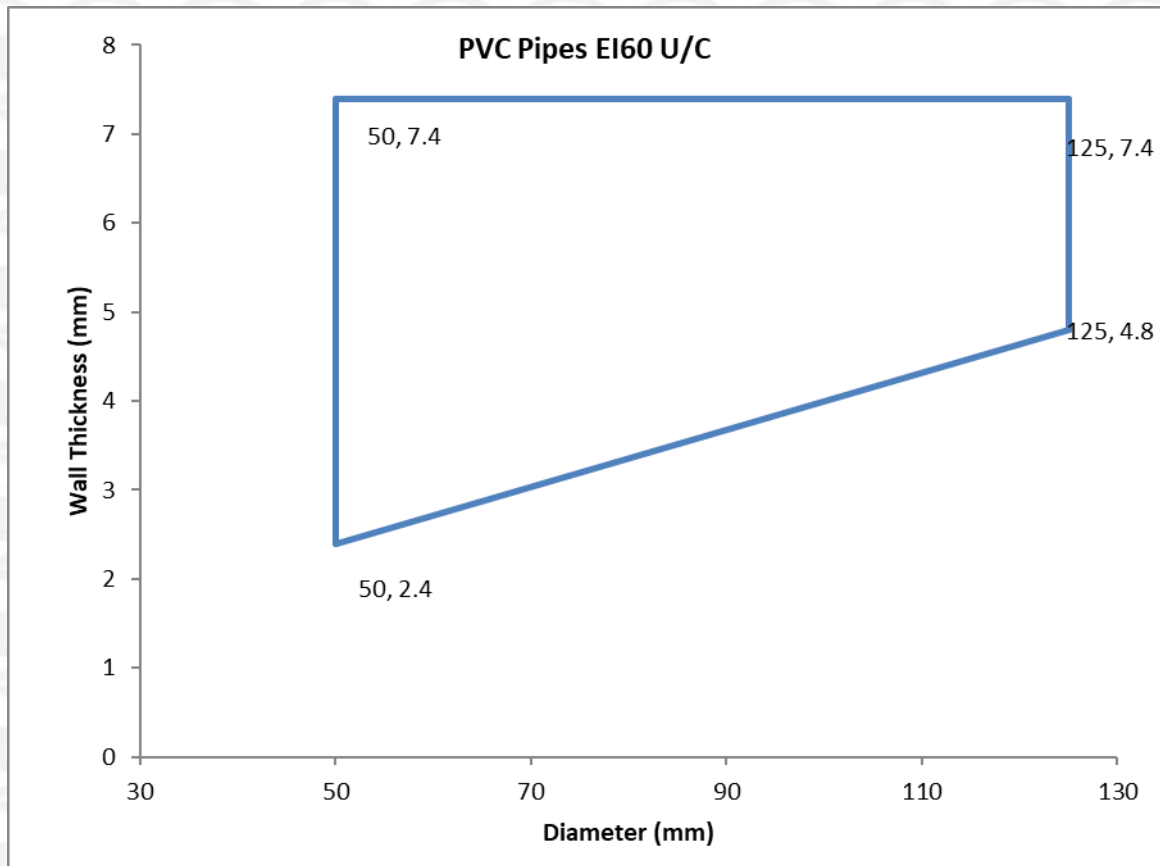
1. Supporting construction
2. PROMASEAL® Fire Barrier
3. PROMASEAL® HPEX Sealant
4. Penetration Service
5. PROMASEAL® Intumescent Acrylic Sealant

| Penetration Specification | PROMASEAL® HPEX Sealant | Classification |
|---------------------------|---|------------------|
| Pipe Diameters as below | 20mm annulus, 25mm deep both faces of the PROMASEAL® Fire Barrier | See graphs below |



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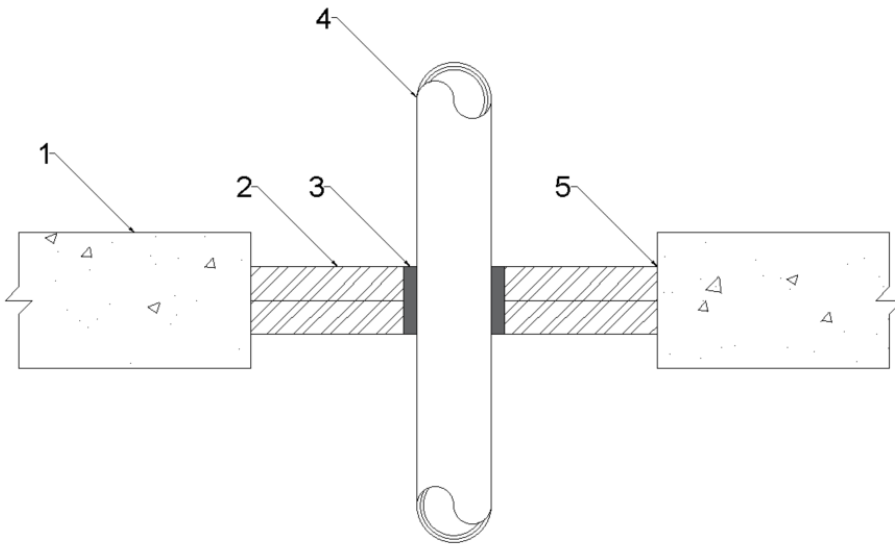
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Max Aperture 1100mm Wide x 1500mm Long



Key

1. Supporting construction
2. PROMASEAL® Fire Barrier
3. PROMASEAL® HPEX Sealant
4. Penetration Service
5. PROMASEAL® Intumescent Acrylic Sealant

Penetration Specification

Classification

Uponor MLC (Multi-Layer Composite) Pipe 40mm ϕ 4mm wall thickness

Uponor MLC (Multi-Layer Composite) Pipe 50mm ϕ 4.5mm wall thickness

Uponor MLC (Multi-Layer Composite) Pipe 63mm ϕ 6mm wall thickness

Uponor MLC (Multi-Layer Composite) Pipe 75mm ϕ 7.5mm wall thickness

Uponor MLC (Multi-Layer Composite) Pipe 90mm ϕ 8.5mm wall thickness

Uponor MLC (Multi-Layer Composite) Pipe 110mm ϕ 10mm wall thickness

EI 60 U/C

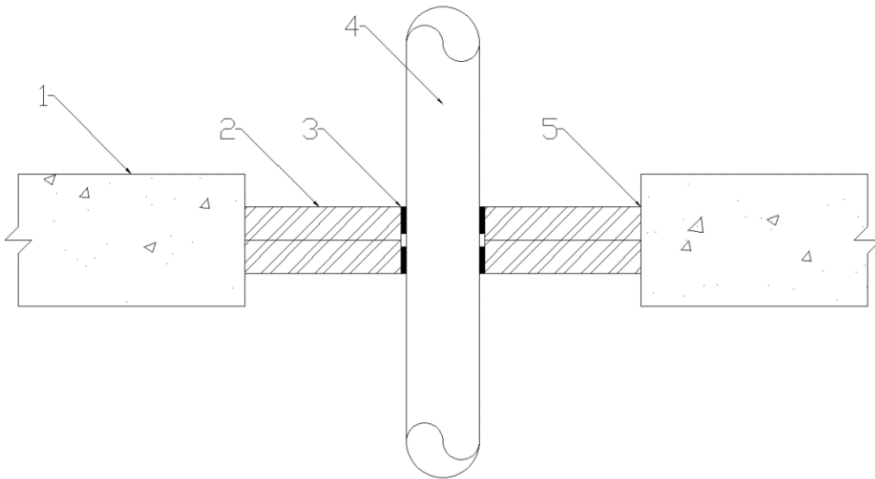
PROMASEAL® HPEX Sealant 20mm annulus full 50mm depth of the PROMASEAL® Fire Barrier



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Max Aperture 350mm Wide x 1000mm Long



Key

1. Supporting construction
2. PROMASEAL® Fire Barrier
3. PROMASEAL® Wrap
4. Penetration Service
5. PROMASEAL® Intumescent Acrylic Sealant

| Service(s) | PROMASEAL® Wrap Ref | Classification |
|---|---------------------|------------------------|
| PVC Pipe up to 125mm Ø, 4.8-7.4mm wall thickness. | 2mm thickness | EI 120 U/C |
| PP Pipe up to 40mm Ø, 3.1-17.1mm wall thickness. | 2mm thickness | |
| PE Pipe up to 125mm Ø, 11.4mm wall thickness. | 2mm thickness | |
| PE Pipe up to 125mm Ø, 3.1-11.4mm wall thickness. | 2mm thickness | E 120 U/C EI 90 U/C |

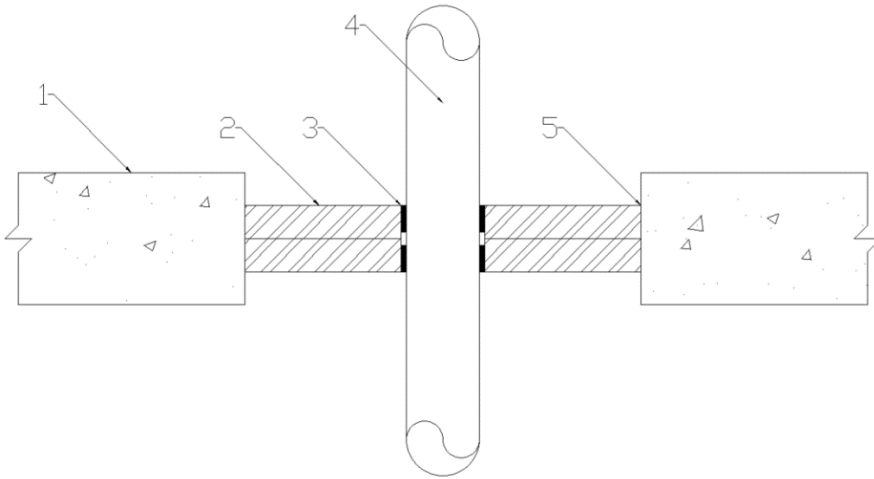
¹PROMASEAL® Wrap secured internally within both faces of the PROMASEAL® Fire Barrier



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Max Aperture 1100mm Wide x 1500mm Long



Key

1. Supporting construction
2. PROMASEAL® Fire Barrier
3. PROMASEAL® Wrap
4. Penetration Service
5. PROMASEAL® Intumescent Acrylic Sealant

| Service(s) | PROMASEAL® Wrap Ref | Classification |
|---|---------------------|----------------|
| PVC Pipe up to 125mm Ø, 4.8-7.4mm wall thickness. | 2mm thickness | EI 60 U/C |
| PP Pipe up to 40mm Ø, 3.1-17.1mm wall thickness. | 2mm thickness | |
| PE Pipe up to 125mm Ø, 11.4mm wall thickness. | 2mm thickness | |
| PE Pipe up to 125mm Ø, 3.1-11.4mm wall thickness. | 2mm thickness | |

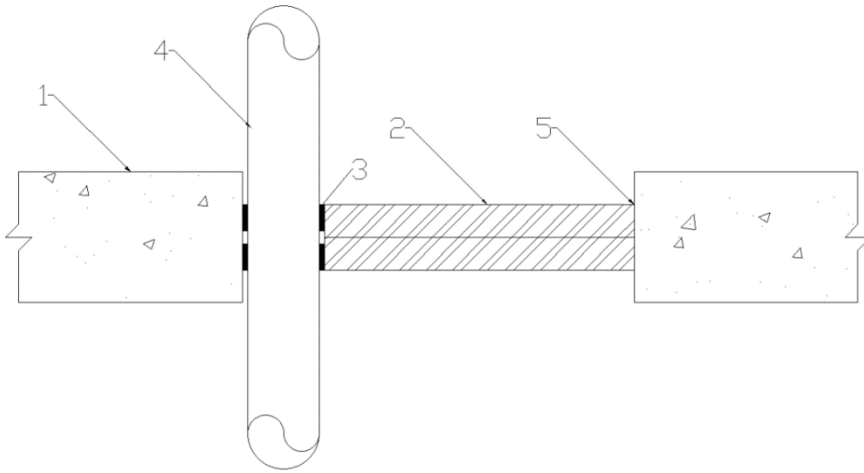
¹PROMASEAL® Wrap secured internally within both faces of the PROMASEAL® Fire Barrier



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Max Aperture 350mm Wide x 1000mm Long



Key

1. Supporting construction
2. PROMASEAL® Fire Barrier
3. PROMASEAL® Wrap
4. Penetration Service
5. PROMASEAL® Intumescent Acrylic Sealant

| Service(s) | PROMASEAL® Wrap Ref | Classification |
|---|---------------------|------------------------|
| PVC Pipe up to 125mm Ø, 4.8-7.4mm wall thickness. | 2mm thickness | EI 120 U/C |
| PP Pipe up to 40mm Ø, 3.1-17.1mm wall thickness. | 2mm thickness | |
| PE Pipe up to 125mm Ø, 11.4mm wall thickness. | 2mm thickness | |
| PE Pipe up to 125mm Ø, 3.1-11.4mm wall thickness. | 2mm thickness | E 120 U/C EI 90 U/C |

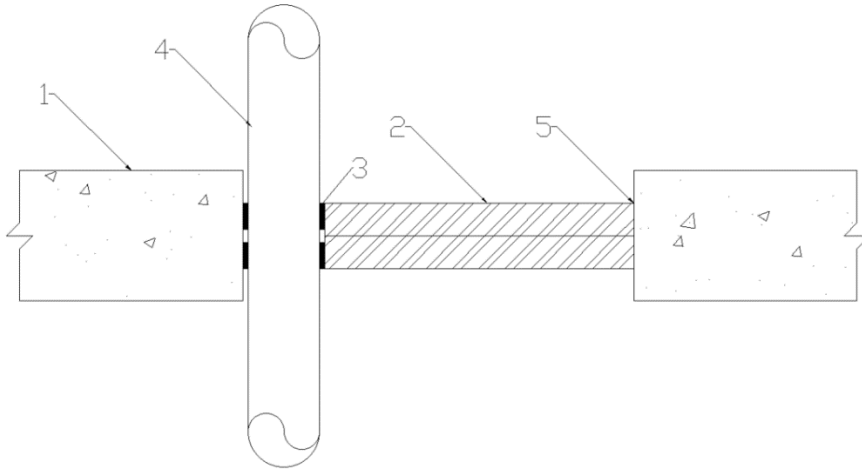
¹PROMASEAL® Wrap secured internally within both faces of the PROMASEAL® Fire Barrier



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Max Aperture 1100mm Wide x 1500mm Long



Key

1. Supporting construction
2. PROMASEAL® Fire Barrier
3. PROMASEAL® Wrap
4. Penetration Service
5. PROMASEAL® Intumescent Acrylic Sealant

| Service(s) | PROMASEAL® Wrap Ref | Classification |
|---|---------------------|----------------|
| PVC Pipe up to 125mm Ø, 4.8-7.4mm wall thickness. | 2mm thickness | EI 60 U/C |
| PP Pipe up to 40mm Ø, 3.1-17.1mm wall thickness. | 2mm thickness | |
| PE Pipe up to 125mm Ø, 11.4mm wall thickness. | 2mm thickness | |
| PE Pipe up to 125mm Ø, 3.1-11.4mm wall thickness. | 2mm thickness | |

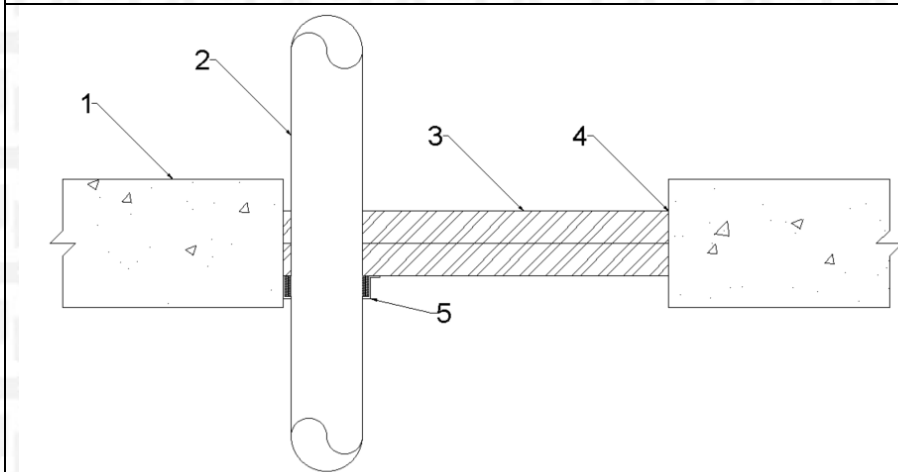
¹PROMASEAL® Wrap secured internally within both faces of the PROMASEAL® Fire Barrier



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Max Aperture 350mm Wide x 1000mm Long



- Key**
1. Supporting construction
 2. Penetration Service
 3. PROMASEAL® Fire Barrier
 4. PROMASEAL® Intumescent Acrylic Sealant
 5. PROMASEAL® Collar

| Penetration Specification | PROMASEAL® Collar | Classification |
|---|--|----------------|
| Pipe Diameters as below. Zero Distance | Fixed to the underside of the PROMASEAL® Fire Barrier utilising steel pig tail fixings | EI 120 U/C |

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



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

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

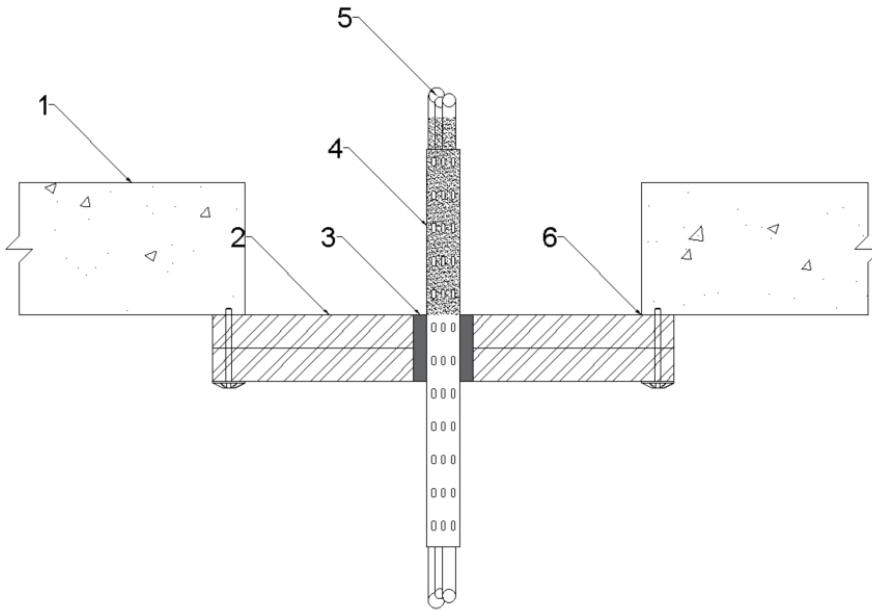


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Double Layer, PROMASEAL® Fire Barrier 50mm, Pattress Installed Electrical Cables

Max Aperture 1000mm Wide x 1300mm Long



Key

1. Supporting construction
2. PROMASEAL® Fire Barrier
3. PROMASEAL® HPEX Sealant
4. PROMASEAL® Fire Barrier Coating
5. Penetration Service
6. PROMASEAL® Intumescent Acrylic Sealant

Penetration Specification

Classification

*500mm perforated cable tray

*Electrical cables up to 21mm ϕ

*1 off 'C1' Cable

*1 off 'C2' Cable

*1 off 'C3' Cable

EI 60

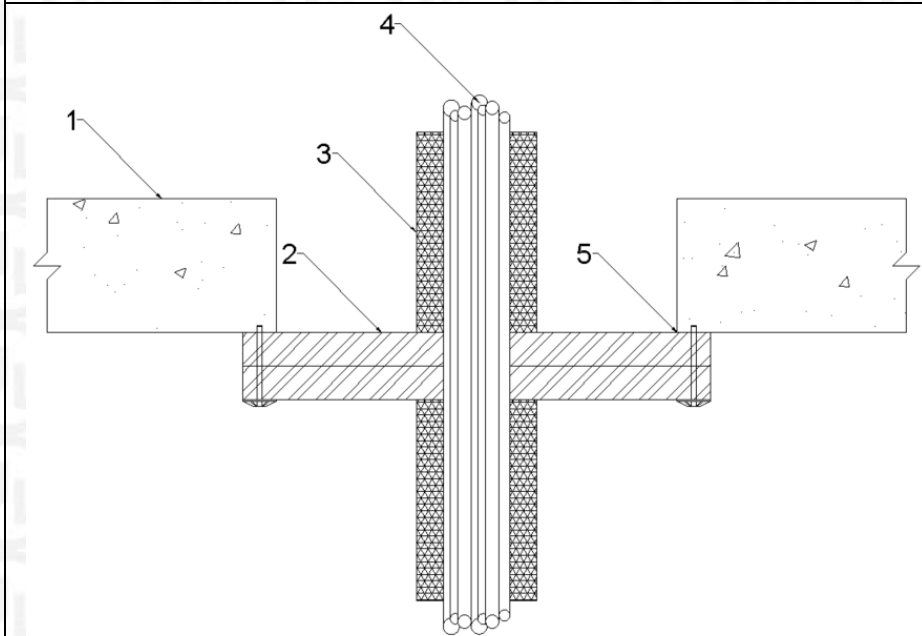
*All cables coated with 2mm DFT PROMASEAL® Fire Barrier Coating 300mm along the cables upper side of the seal PROMASEAL® HPEX Sealant 20mm annulus full 50mm depth of the PROMASEAL® Fire Barrier



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Max Aperture 1000mm Wide x 1300mm Long



Key

1. Supporting construction
2. PROMASEAL® Fire Barrier
3. Insulation
4. Penetration Service
5. PROMASEAL® Intumescent Acrylic Sealant

Service(s)

Classification

¹Electrical cables upto 80mm dia

¹Cable Trays and Ladders

¹100 mm diameter bundle telecommunication cable type "F"

¹Unsheathed electrical cables up to 17mm dia

¹Unsheathed electrical cables 18-24mm dia

¹Steel or Copper Conduits up to 16mm

¹Plastic conduits up to 16mm

EI 60

¹Cables and cable trays wrapped with a single layer of 40mm thick stonewool, min 40kg/m³ (L/I 300mm)

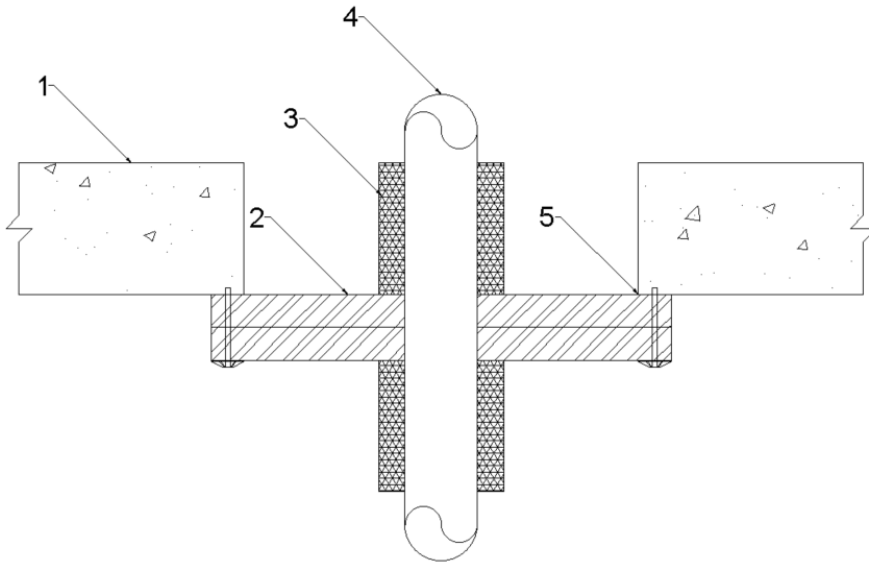


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Double Layer, PROMASEAL® Fire Barrier 50mm, Pattress Installed Insulated Metallic Pipes

Max Aperture 1000mm Wide x 1300mm Long



Key

1. Supporting construction
2. PROMASEAL® Fire Barrier
3. Insulation
4. Penetration Service
5. PROMASEAL® Intumescent Acrylic Sealant

Service(s)

Classification

Steel or Copper Pipe 42mm Ø, 1.2mm – 14.2mm wall thickness. (L/I 300mm) 40mm stone wool insulation (min 40Kg/m³)

EI 60 C/U

Steel or Copper Pipe 42mm – 159mm Ø, 2mm – 14.2mm wall thickness. (L/I 300mm) 40mm stone wool insulation (min 40Kg/m³)

E 60 C/U
 EI 30 C/U



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Double Layer, PROMASEAL® Fire Barrier 50mm, Pattress Installed Plastic Pipes

| Max Aperture 1000mm Wide x 1300mm Long | | |
|--|--|---|
| | | Key 1. Supporting construction 2. PROMASEAL® Fire Barrier 3. Insulation 4. Penetration Service 5. PROMASEAL® Collar |
| Penetration Specification | PROMASEAL® Collar | Classification |
| Pipe Diameters as below. Zero Distance | Fixed to the underside of the PROMASEAL® Fire Barrier utilising steel pig tail fixings | EI 60 U/C |

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



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

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

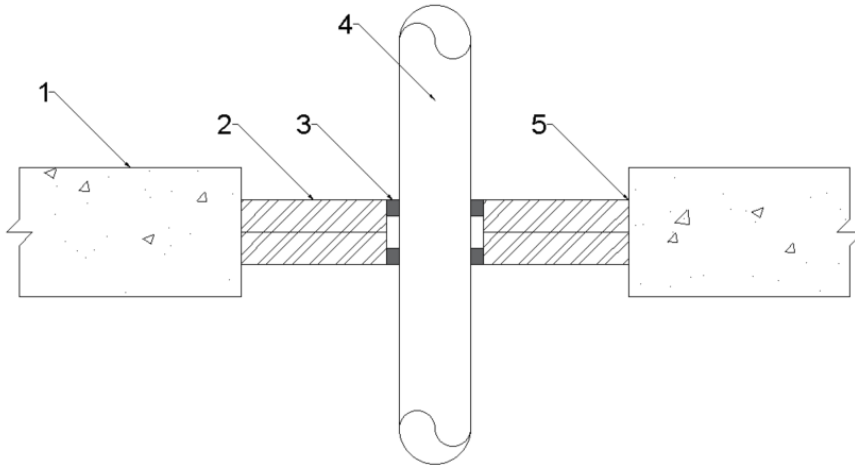


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Double Layer, PROMASEAL® Fire Barrier 50mm, Plastic Pipes

Max Aperture 1000mm Wide x 1300mm Long



Key

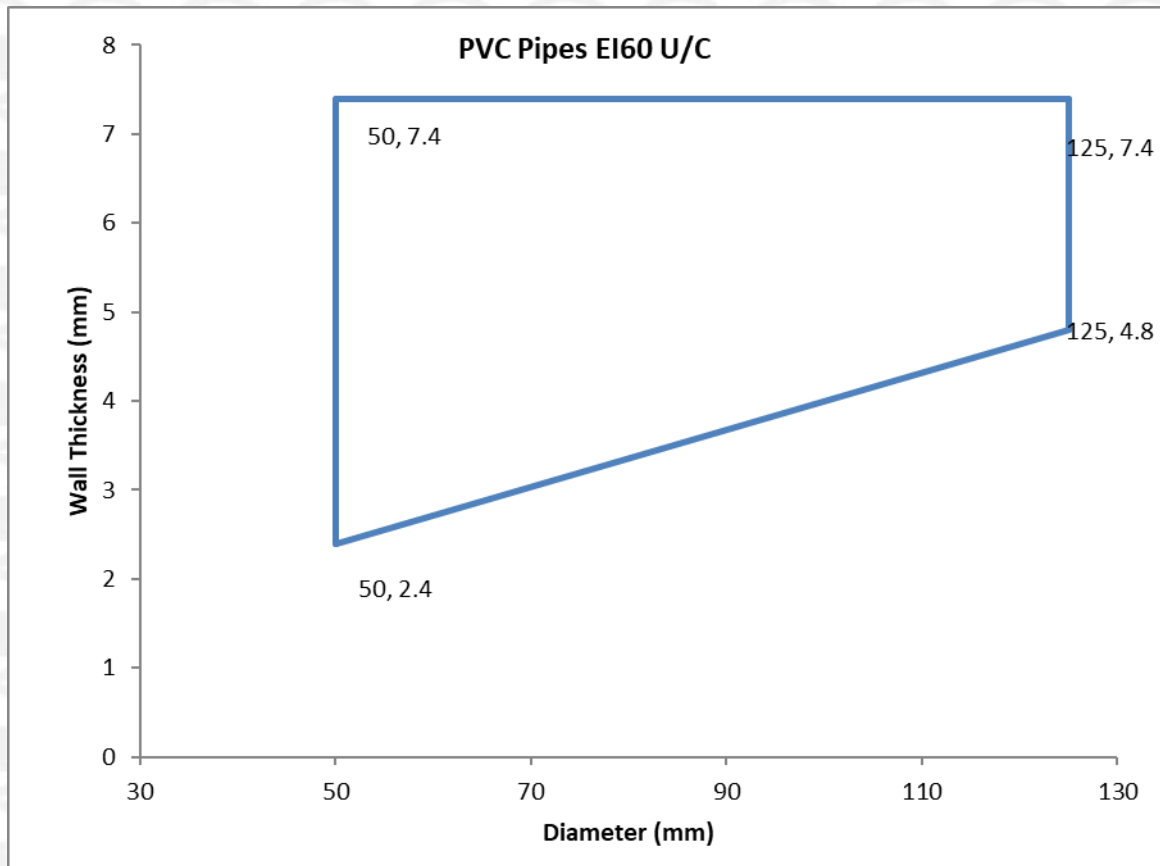
1. Supporting construction
2. PROMASEAL® Fire Barrier
3. PROMASEAL® HPEX Sealant
4. Penetration Service
5. PROMASEAL® Intumescent Acrylic Sealant

| Penetration Specification | PROMASEAL® HPEX Sealant | Classification |
|---------------------------|---|------------------|
| Pipe Diameters as below | 20mm annulus, 25mm deep both faces of the PROMASEAL® Fire Barrier | See graphs below |



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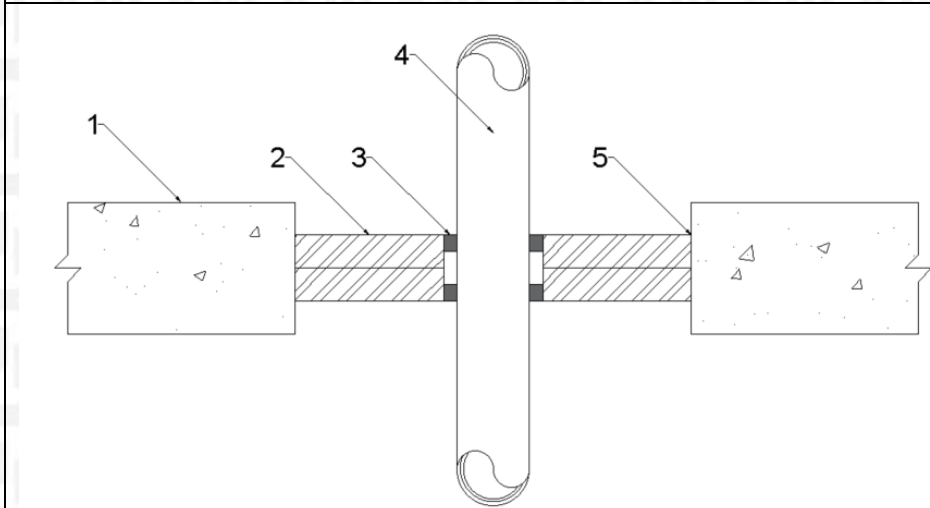
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Max Aperture 1000mm Wide x 1300mm Long



Key

1. Supporting construction
2. PROMASEAL® Fire Barrier
3. PROMASEAL® HPEX Sealant
4. Penetration Service
5. PROMASEAL® Intumescent Acrylic Sealant

Penetration Specification

Classification

| | |
|--|-----------|
| Uponor MLC (Multi-Layer Composite) Pipe 40mm ϕ 4mm wall thickness | EI 60 U/C |
| Uponor MLC (Multi-Layer Composite) Pipe 50mm ϕ 4.5mm wall thickness | |
| Uponor MLC (Multi-Layer Composite) Pipe 63mm ϕ 6mm wall thickness | |
| Uponor MLC (Multi-Layer Composite) Pipe 75mm ϕ 7.5mm wall thickness | |
| Uponor MLC (Multi-Layer Composite) Pipe 90mm ϕ 8.5mm wall thickness | |
| Uponor MLC (Multi-Layer Composite) Pipe 110mm ϕ 10mm wall thickness | |

PROMASEAL® HPEX Sealant 20mm annulus full 50mm depth of the PROMASEAL® Fire Barrier



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Max Aperture 1000mm Wide x 1300mm Long

| | | |
|---|---|------------------------------|
| | <p>Key</p> <ol style="list-style-type: none"> 1. Supporting construction 2. Penetration Service 3. PROMASEAL® Fire Barrier 4. PROMASEAL® Intumescent Acrylic Sealant 5. PROMASEAL® Collar | |
| <p>Penetration Specification</p> | <p>PROMASEAL® Collar</p> | <p>Classification</p> |
| <p>Pipe Diameters as below. Zero Distance</p> | <p>Fixed to the underside of the PROMASEAL® Fire Barrier utilising steel pig tail fixings</p> | <p>EI 60 U/C</p> |

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



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

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



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| Substrate | Minimum Substrate Thickness (mm) | Maximum Seal width (mm) | Minimum Seal Depth (mm) | Duct A / Duct B | Duct Specification (Duct must be classified in accordance with EN 13501-3/4 for the required period) | Fire Resistance (mins.) | |
|---------------------------------------|----------------------------------|-------------------------|-------------------------|-----------------|---|---|-----|
| | | | | | | E | S |
| Drywall/ Concrete/ Masonry wall | 100 | 100 | 200* | A | EN 13501-3 - Uninsulated 1.0mm GMS steel, rectangular duct, maximum dimensions 1250 mm wide by 1000 mm high. | 60 | 120 |
| | | | | B | | 120 | - |
| Concrete floor | 150 | 250 | 275** | A | | 120 | 120 |
| | | | | B | | 120 | - |
| Drywall/ Concrete/ Masonry wall | 100 | 100 | 400*** | A | | 60 | 120 |
| Drywall/ Concrete/ Masonry wall | 100 | 100 | 200* | B | | EN 13501-3 - Uninsulated 1.0mm GMS steel, rectangular duct, maximum dimensions 1250 mm wide by 1000 mm high. Duct insulated with Insulfrax 128 kg/m ³ , 25 mm thick for a length of 400 mm through the penetration seal (100 mm extending from both faces of the seal) | 120 |
| Drywall/ Concrete/ Masonry wall | 100 | 100 | 200* | C | EN 13501-4 - Uninsulated 1.0mm GMS steel, rectangular duct, maximum dimensions 1250 mm wide by 1000 mm high. Duct insulated with Insulfrax 128 kg/m ³ , 25 mm thick for a length of 400 mm through the penetration seal (100 mm extending from both faces of the seal) | 120 | 120 |

* 4 layers, outer layers overlapped

** 50 mm PROMASEAL® Fire Barrier/100 mm PROMASEAL® Fire Compound Extra Strength /125 mm PROMASEAL® Fire Barrier

*** 2 layers + 1 layer, 150 mm long fixed (with 75 and 100 mm pigtail screws and bedded on PROMASEAL® HPEX Sealant sealant) around the duct to form a collar on both faces of the main seal.



Appendix UL-EU Certificate

| | |
|---------------------------|-------------------|
| Certification Mark | UL-EU mark |
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The UL-EU Mark, as displayed below, shall appear on certified products only. Minimum size is not specified, as long as the Mark is legible. The following is suggested.



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