

General description

The PROMASEAL® Flex System is a highly flexible and water-resistant system designed to accommodate structural movement at linear joints and for penetration seals which allow for movement in building services.

The system comprises of PROMASEAL® Flex Barrier, a 1200mm long x 150mm wide x 100mm thick ablative coated, highly flexible strip and PROMASEAL® Flex, a coating, which is applied to all joints and junctions with a minimum 20mm overlap on all surrounding substrates and services

Alternatively, PROMASEAL® Flex can be applied, in-situ, to a stone wool backing by spray, brush or trowel.

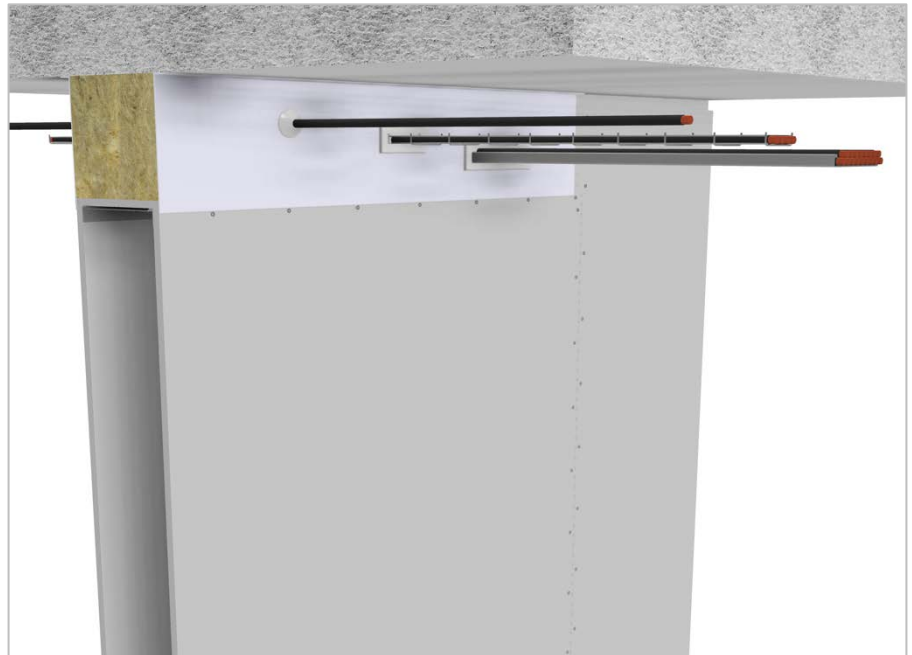
The PROMASEAL® Flex System can allow for up to +/- 25% movement and, when tested to BS EN 1366-3, can provide up to 120 minutes fire integrity and fire insulation (EI120).

An additional advantage of the PROMASEAL® Flex System is that it can be used to prevent air leakage and provide excellent acoustic performance.

Fields of application

The PROMASEAL® Flex System is suitable for use in openings in concrete floors, masonry walls and in dry wall construction where there are single or multiple service penetrations and where movement is required. It can be used with various building service types including copper & steel pipes, cable bunches, cable trays and cable ladders. It can also be used with polypropylene (PP), high density polythene (HDPE), PVC and ABS combustible pipes. Sizes and types of aperture and details of service types which can be used with the PROMASEAL® Flex System can be found on pages 4-7 of this Data Sheet.

The PROMASEAL® Flex System is also ideal for internal applications at slab edge and head of wall applications where movement is required.



Application instructions

For good adhesion, the surfaces of the substrate must be clean and free of any dust or grease. Where the substrate is concrete or masonry and is in a good clean condition, no priming is required. The aperture temperature should be at 5°C or above at the time of installation.

Services should be rigidly supported via steel angles, hangers or channels, no further than 250mm from both faces of the wall and the top face of the floor. Services must be a minimum 50mm from the substrate edge.

PROMASEAL® Flex Barrier is installed into the opening, with a minimum 20% compression fit between the substrates and tightly packed around the building services. Once the PROMASEAL® Flex Barrier is installed, cover all joints and junctions with PROMASEAL® Flex ensuring a minimum 20mm overlap on to all surrounding substrates and building services.

Alternatively, for larger openings, install minimum 100mm thick stone wool into the opening and then apply PROMASEAL® Flex. The stone wool must have a minimum density of 80 kg/m³ with a minimum 20% compressive fit

between the substrate and around all building services. Ensure that the stone wool is installed in the correct orientation to allow for compression.

PROMASEAL® Flex coating can either be brushed, spray or trowel applied over the installed stone wool insulation, with a minimum 20mm overlap on to all surrounding substrates and building services. For wall applications the PROMASEAL® Flex coating is applied to both sides of the stone wool insulation, and for floors it is only applied to the top face.

Ensure that the PROMASEAL® Flex coating is applied to a minimum dry film thickness (DFT) of 1mm, which will require a minimum wet film thickness (WFT) of 2.5mm.

For combustible pipes and services, apply PROMASEAL® HPEX Sealant to both sides of the seal with a minimum 20mm annulus and 25mm depth.

The stone wool must be manufactured in accordance with EN13162:2001.

CPVC sprinkler pipes and services

A chemical reaction can occur between cPVC pipes, which are commonly used for sprinkler pipes, and some types of fire stopping materials. It is essential that PROMASEAL® Flex coating is not allowed to come in contact with the surface of the cPVC pipe.

PROMASEAL® HPEX Sealant is compatible with the market leading brands of cPVC sprinkler pipes and should be applied as a minimum 20mm annulus through the full thickness of the PROMASEAL® Flex Barrier, see P7 of this Data Sheet for more details. Check with the manufacturer of the cPVC pipe that the PROMASEAL® HPEX Sealant is included on their list of compatible products.

EN Testing and scope of application

PROMASEAL® Flex System has been tested to EN1366-3 and EN1366-4 Fire Resistance standards.

Pages 3 to 7 includes standard details which have been tested to EN. The Table below provides a definition of terms and the scope of application for EN standards and can be referred to when using the standard details.

System advantages and customer benefits

1. Fire resistance testing in rigid and flexible walls, and rigid floors.
2. Ideal for slab edge applications, head of wall movement, or where movement is expected in service penetrations
3. Air permeability and acoustic test data available
4. Suitable for indoor use without additional environmental protection
5. Tested as a system with PROMASEAL® HPEX sealant.

Packaging

PROMASEAL® Flex is supplied in buckets of 10kg.

Coverage (*average*): 2.8kg/m² or 2.24L/m²

PROMASEAL® Flex Barrier is supplied in 1200mm long x 150mm wide x 100mm thick strips.

Safety instructions

Please refer to the safety data sheet for additional advice.

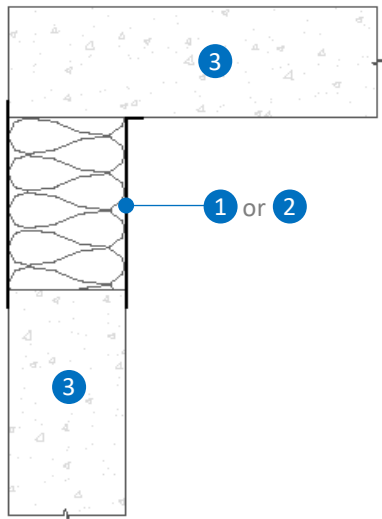
The PROMASEAL® Flex System will not support loads and must not be walked on.

Storage requirements

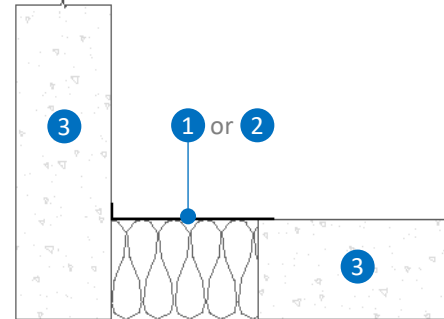
Store in cool and dry conditions.

Term	Scope of Application
Flexible Walls	A wall used for the fire testing of penetration seals comprising of steel stud. Type F gypsum boards, with or without mineral wool in the cavity, with an overall depth and make up appropriate to the required fire resistance. Refer to ASFP Advisory Note 15 for alternative wall constructions. The document allows options for either an 'open cavity' or 'letter-box' perimeter opening formed from stud track sections and lined with a layer of Type F gypsum board.
Rigid Walls	A wall made of aerated, lightweight, medium or high density blocks, lightweight or high density concrete; with a thickness appropriate to the required fire resistance. Masonry, brick or concrete walls to have a minimum density 850 Kg/m ³ , and 650 Kg/m ³ for aerated concrete blocks.
Rigid Floors	A floor made of aerated, lightweight or high density concrete and a thickness appropriate to the required fire resistance classification. Masonry/concrete floors to have a minimum density 850 Kg/m ³ , and 650 Kg/m ³ for aerated concrete slabs.
E	Fire integrity, the ability of a construction to contain a fire for a specific fire period, free from collapse, holes, cracks and fissures and occurrence of sustained flaming on the unexposed side of the construction
I	Fire Insulation, the ability of a construction, including the fire stopping detail, to restrict the temperature rise of the unexposed face to below specified levels, 140°C mean temperature rise and 180°C maximum temperature rise.
U	Pipe end configuration uncapped
C	Pipe end configuration capped

PROMASEAL® Flex System at head of wall



PROMASEAL® Flex System in rigid floor



KEY

- 1 PROMASEAL® Flex coating and stone wool, minimum 100mm thick x 80kg/m³
- 2 PROMASEAL® Flex Barrier and PROMASEAL® Flex coating
- 3 Concrete, aerated concrete or brickwork, minimum 150mm thick

KEY

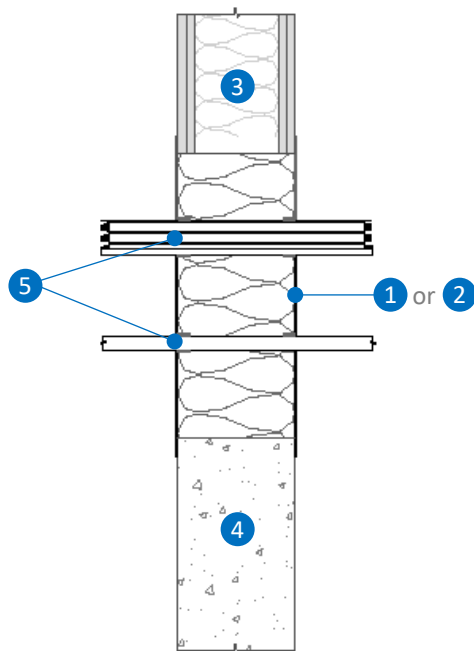
- 1 PROMASEAL® Flex coating and stone wool, minimum 100mm thick x 80kg/m³
- 2 PROMASEAL® Flex Barrier and PROMASEAL® Flex coating
- 3 Concrete, aerated concrete or brickwork, minimum 150mm thick

Maximum Joint Width (mm)	Fire Resistance (minutes)	
	E	EI
150	240	180
350	120	120

Maximum Joint Width (mm)	Fire Resistance (minutes)	
	E	EI
200	240	180
350	120	120



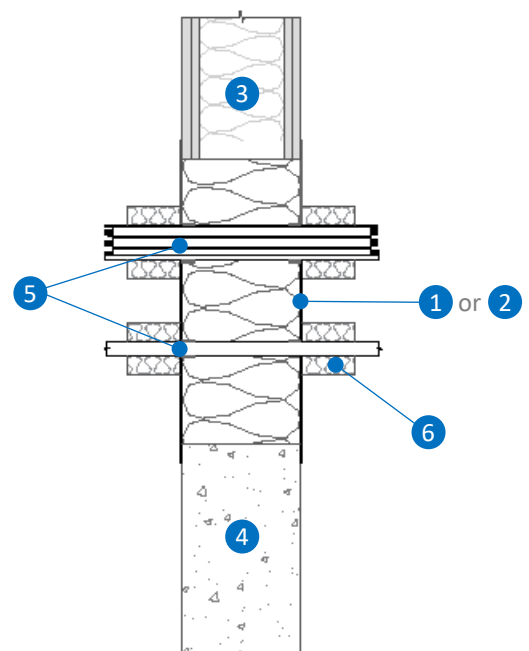
PROMASEAL® Flex System for Cable Tray and Conduit penetration through Flexible and Rigid Wall



KEY

- 1 PROMASEAL® Flex coating and stone wool, minimum 100mm thick x 80kg/m³
- 2 PROMASEAL® Flex Barrier and PROMASEAL® Flex coating
- 3 Flexible wall, minimum 100mm
- 4 Rigid Wall, minimum 100mm
- 5 Cable penetrations

PROMASEAL® Flex System for Cable Tray and Conduit penetration through Flexible and Rigid Wall with Stone Wool Insulation



KEY

- 1 PROMASEAL® Flex coating and stone wool, minimum 100mm thick x 80kg/m³
- 2 PROMASEAL® Flex Barrier and PROMASEAL® Flex coating
- 3 Flexible wall, minimum 100mm
- 4 Rigid Wall, minimum 100mm
- 5 Cable penetrations
- 6 Stone wool, 40mm thick x 200mm length x 45kg/m³

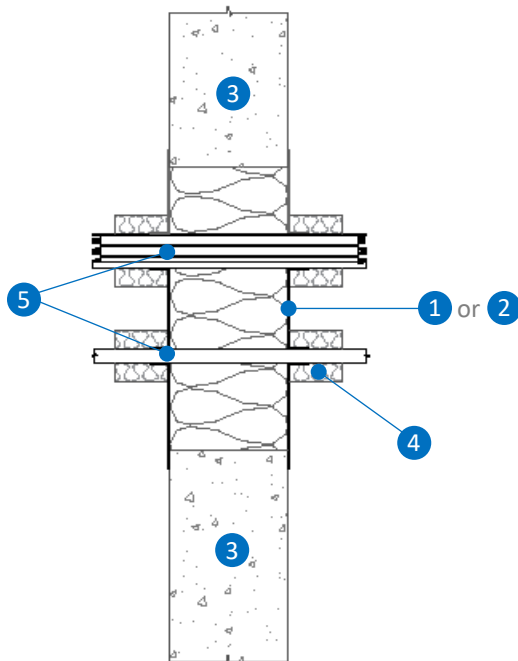
Maximum Aperture (mm) 730 x 1200

Maximum Aperture (mm) 800 x 800

Penetrating services	Fire Resistance (minutes)	
	E	EI
Electrical cables up to 21mm diameter	60	60
Electrical cables between 22-80mm diameter	60	45
Cable trays and ladders	60	30
Telecommunication cable bundles (type F) 100mm diameter	60	60
Unsheathed electrical cables up to 24mm diameter	60	45
Steel and copper conduits up to 16mm	60	30

Penetrating services	Fire Resistance (minutes)	
	E	EI
Electrical cables between 21-50mm diameter	90	90
Electrical cables between 51-80mm diameter	90	60
Cable trays and ladders	90	90
Telecommunication cable bundles (type F) with 100mm diameter	120	120
Unsheathed electrical cables up to 24mm diameter	90	60
Steel and copper conduits up to 16mm	90	90

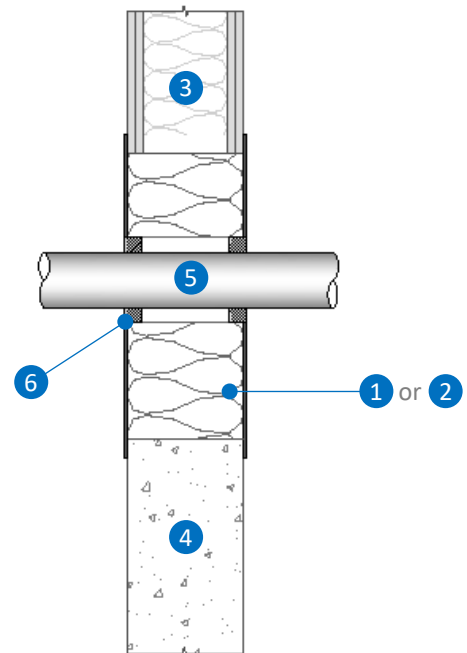
PROMASEAL® Flex System for Cable Tray and Conduit penetration through Rigid Wall with Stone Wool Insulation



KEY

- | | |
|---|---|
| 1 | PROMASEAL® Flex coating and stone wool, minimum 100mm thick x 80kg/m ³ |
| 2 | PROMASEAL® Flex Barrier and PROMASEAL® Flex coating |
| 3 | Rigid Wall, minimum 150mm |
| 4 | Stone wool, 40mm thick x 200mm length x 45kg/m ³ |
| 5 | Cable penetrations |

PROMASEAL® Flex System for Combustible Pipe Penetrating a Flexible and Rigid Wall



KEY

- | | |
|---|---|
| 1 | PROMASEAL® Flex coating and stone wool, minimum 100mm thick x 80kg/m ³ |
| 2 | PROMASEAL® Flex Barrier and PROMASEAL® Flex coating |
| 3 | Flexible Wall, minimum 100mm |
| 4 | Rigid Wall, minimum 100mm |
| 5 | Combustible pipe penetration |
| 6 | PROMASEAL® HPEX Sealant, minimum 20mm annulus and 25mm depth |

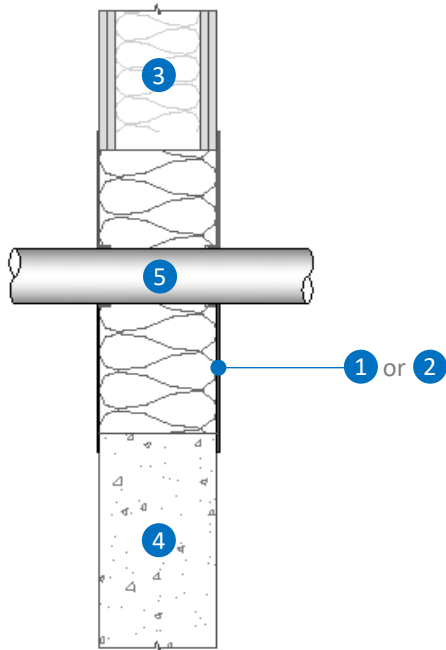
Maximum Aperture (mm)	730 x 1200
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Maximum Aperture (mm)	730 x 1200
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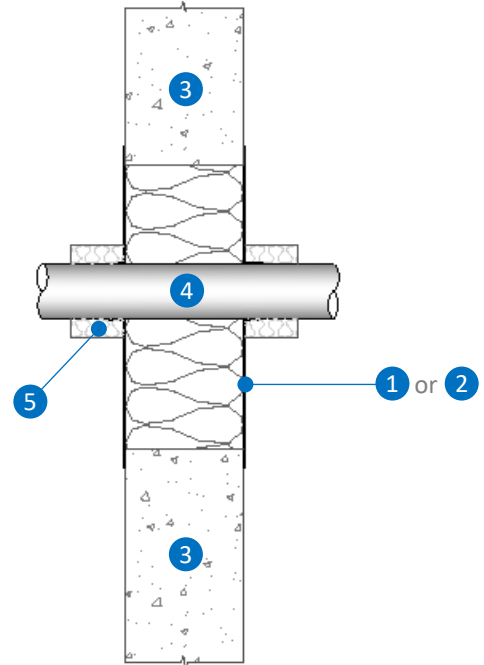
Penetrating services	Fire Resistance (minutes)	
	E	EI
Electrical cables up to 21mm diameter	120	120
Electrical cables between 22-50mm diameter	90	60
Electrical cables between 51-80mm diameter	60	60
Cable trays and ladders	60	60
Telecommunication cable bundles (type F) 100mm diameter	120	120
Unsheathed electrical cables up to 24mm diameter	120	120
Steel and copper conduits up to 16mm	120	120

Pipe Diameter (mm)	Fire Resistance (minutes)	
	E	EI
40-200	60	60

PROMASEAL® Flex System for Steel/Copper Pipe penetration through Flexible and Rigid Wall



PROMASEAL® Flex System for Steel/Copper Pipe penetration through Rigid Wall With Stone Wool Insulation



KEY

- 1 PROMASEAL® Flex coating and stone wool, minimum 100mm thick x 80kg/m³
- 2 PROMASEAL® Flex Barrier and PROMASEAL® Flex coating
- 3 Flexible wall, minimum 100mm
- 4 Rigid Wall, minimum 100mm
- 5 Pipe penetration

KEY

- 1 PROMASEAL® Flex coating and stone wool, minimum 100mm thick x 80kg/m³
- 2 PROMASEAL® Flex Barrier and PROMASEAL® Flex coating
- 3 Rigid Wall, minimum 150mm
- 4 Pipe penetration
- 5 Stone wool, 40mm thick x 200mm length x 45kg/m³

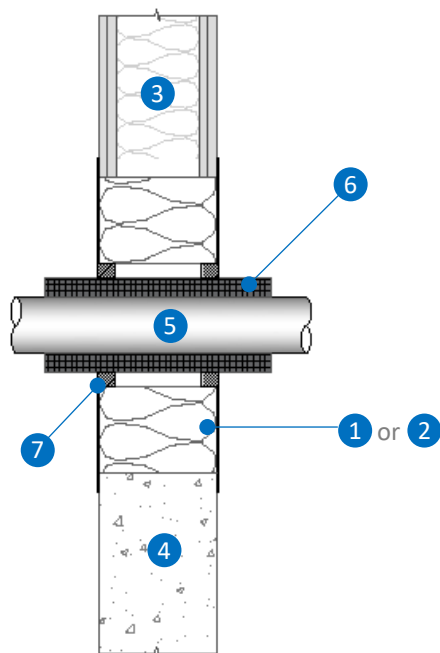
Maximum Aperture (mm)	730 x 1200
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Maximum Aperture (mm)	730x1200
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Maximum Pipe Diameter (mm)	Fire Resistance (minutes)	
	E	EI
159	60	-

Maximum Pipe Diameter (mm)	Fire Resistance (minutes)	
	E	EI
159	120	120
200 (steel pipe only)	90	30

PROMASEAL® Flex System for Steel/Copper Pipe penetration through Flexible and Rigid Wall with Elastomeric Insulation



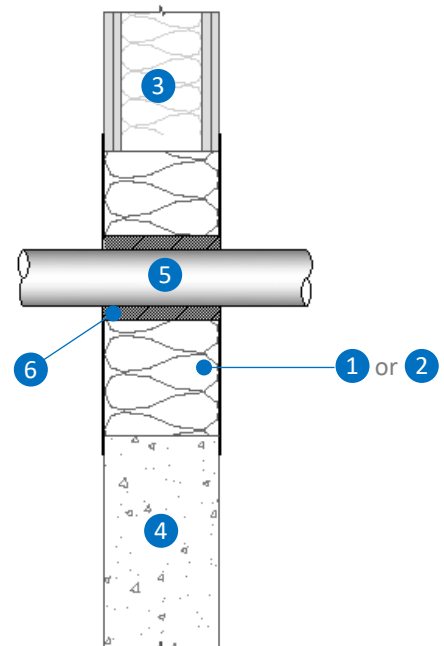
KEY

1	PROMASEAL® Flex coating and stone wool, minimum 100mm thick x 80kg/m ³
2	PROMASEAL® Flex Barrier and PROMASEAL® Flex coating
3	Flexible Wall, minimum 100mm
4	Rigid Wall, minimum 100mm
5	Pipe penetration
6	Armaflex AF Insulation 20mm thick
7	PROMASEAL® HPEX Sealant

Maximum Aperture (mm)	730x1200
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Maximum Pipe Diameter (mm)	Fire Resistance (minutes)	
	E	EI
159	60	30

PROMASEAL® Flex System for cPVC Sprinkler or other Service Pipe Penetrating a Flexible and Rigid Wall



KEY

1	PROMASEAL® Flex coating and stone wool, minimum 100mm thick x 80kg/m ³
2	PROMASEAL® Flex Barrier and PROMASEAL® Flex coating
3	Flexible Wall, minimum 100mm
4	Rigid Wall, minimum 100mm
5	Combustible pipe penetration
6	PROMASEAL® HPEX Sealant, minimum 20mm annulus and applied through the full thickness of the PROMASEAL® Flex Barrier

Maximum Aperture (mm)	730 x 1200
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Pipe Diameter (mm)	Fire Resistance (minutes)	
	E	EI
40-200	60	60

N.B Check with the manufacturer of the cPVC pipe that the PROMASEAL® HPEX Sealant is included on their list of compatible products.