

# Flexi Coat®

## Technical Data Sheet



UAE Certificate  
of Compliance



APPROVED  
CF5094



ETA 13-1057  
ETA 15-0434  
CE-2812-CPR-  
JA5010



00642

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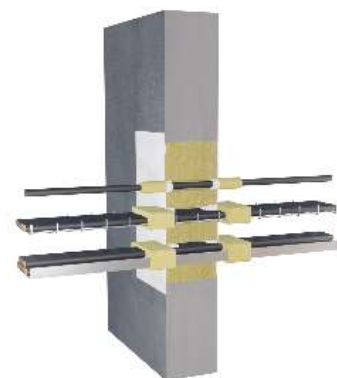
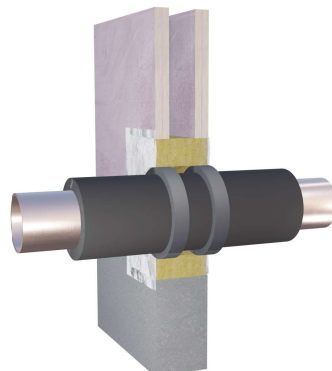
Flexi Coat® is an ablative, highly advanced flexible penetration and aperture sealing system. Flexi Coat® is supplied as both completed pre-coated Flexi Coat® Fingers or as a coating to be applied to stone/mineral wool backing material.

### Intended areas of use

- To reinstate fire resistance through walls and floors
- Movement seals in linear joints and penetration seals
- Multi-service penetrations
- Ideal for slab edge and head of wall applications
- For internal use
- Installed against façades

### Key product advantages

- Causes no known effects to plastic, cables or metal
- Highly flexible and water resistant
- Halogen free, resists fungi and vermin
- Can be brush, trowel or spray applied
- Prevention of air leakage
- Excellent acoustic performance



**Product Specification**

Product Description	
Colour	White (others on request)
Cure Rate	0.5mm per day at 50% relative humidity @ 23°C
Tack Free	6hrs at 23°C, 50% RH
Coating Thickness	2.5mm nominal, wet coating thickness
Coverage	2.8kg/m <sup>2</sup> , 2.24L/m <sup>2</sup>
Classification	EN 13501-2, EN 13501-1
Product Size	10Kg, 20Kg, 1000 x 150 x 100mm fingers
Movement	+/- 25%
Storage Conditions	To be stored in dry conditions between 5°C - 30°C
Shelf Life	18 months for wet product

**Test Data**

Test Description	Result	Test Standard
Specific Gravity (coating)	1.2 - 1.35g/cm <sup>3</sup>	ISO 2811-1:2011
Fire Resistance	Up to EI 120	EN 13501-2, EN 1366-3, EN 1366-4, EN1364-4
Reaction to fire	B-s1, d0	EN 13501-1
Acoustic	Up to 49dB	EN ISO 10140-2:2010
Air Permeability	600 Pa EN 1026 - 100Pa 0.4/1.5 m <sup>3</sup> /h/m <sup>2</sup>	EN1026
Water Permeability	450 Pa - No Leakage	EN 1027
Durability	Type X	EAD 350141-00-1106
VOC % Non-aqueous volatiles (105°C)	11	LEED

FSi has Technical Representatives who provide assistance in the selection and specification of FSi products. For more information, specification and technical advice please call our Head Office on Tel: +44 (0) 1530 515130. Guarantee / Warranty: FSi products are manufactured to rigid standards of quality. No liability can be accepted for the information provided in this document although it is published in good faith and believed to be correct. FSi Limited reserves the right to alter product specifications without prior notice, in line with our Company policy of continuous development and improvement.

## Product Information

### Substrates

The walls shall be a minimum of 100mm thick. Drywalls shall be classified in accordance with EN13501-2 to the required fire resistance period. Masonry / Concrete walls shall have a minimum density for concrete or brick of 780kg/m<sup>3</sup> and for aerated concrete blocks of 600kg/m<sup>3</sup>. All walls shall have at least the same fire resistance as that required for the sealing system.

### Service support requirements

Services should be rigidly supported via steel angles, hangers or channels, not further than 250mm from the surface of the sealing system on both faces of wall and top face of floor unless specified otherwise in the performance data.

### Classification Terminology

Fire resistance classes are: E = Integrity, the product can withstand the fire from the non-fire side, I = Insulation, the product can withstand the temperature travelling down the service. U/U = Uncapped inside and outside the furnace, U/C = Uncapped inside and Capped outside the furnace, C/U = Capped inside and Uncapped outside the furnace.

### Pre-Installation

Ensure that the aperture and services in question are tested with Flexi Coat®, and the site conditions are within the application specification. For combustible services when PyroPro HPE® is used an annular space needs to be present around the service to apply sufficient installation depth. All services and apertures need to be clean and clear of all dust and loose particles. The aperture temperature needs to be at 5°C or above at time of installation.

# FLEXIBLE BARRIER IN RIGID FLOOR

## Products

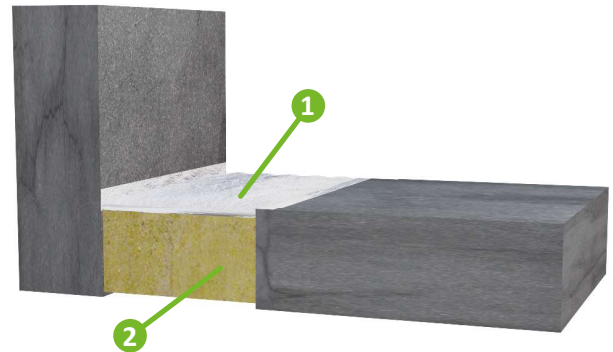
1. Flexi Coat®
2. Stone wool  $\geq 80 \text{ kg/m}^3$ , 100mm depth  
or
1. & 2. Flexi Coat® Fingers

## Classification

See table below

## Supporting Construction

Floor: Thickness  $\geq 150\text{mm}$ , aerated concrete, concrete or brickwork, density  $\geq 670 \text{ kg/m}^3$



Maximum Joint Width (mm)	Classification
200	E240 EI180
300	EI120

## Installation Flexi Coat® Finger:

Install Flexi Coat® Finger into the opening flush with the upper surface of the floor with a minimum 20% compression fit between the substrates. Once the Flexi Coat® Finger is installed, overcoat with Flexi Coat® to all joints/junctions ensuring a minimum 20mm overlap on to all surrounding substrates.

## Installation Flexi Coat®:

Install min. 100mm depth of stone wool (minimum  $80\text{kg/m}^3$ ) with a minimum 20% compression fit between the substrates effectively flush with the upper surface of the floor. Brush or trowel over the stone wool with Flexi Coat®. The stone wool must be manufactured in accordance with EN 13162: 2001. Ensure Flexi Coat® is applied to a **minimum DFT (dry film thickness) of 1mm which will require minimum 2.5mm WFT (wet film thickness)** with a minimum 20mm overlap on to all surrounding substrates.

# FLEXIBLE BARRIER AT HEAD OF WALL

## Products

1. Flexi Coat®
2. Stone wool  $\geq 80 \text{ kg/m}^3$ , 100mm depth  
or
1. & 2. Flexi Coat® Fingers

## Classification

EI180

## Supporting Construction

Floor & wall: Thickness  $\geq 150\text{mm}$ , aerated concrete, concrete or brickwork, density  $\geq 670 \text{ kg/m}^3$

## Maximum Joint Width (mm)

## Classification

200	E240 EI180
300	EI120



## Installation Flexi Coat® Finger:

Install Flexi Coat® Finger into the opening flush with the upper surface of the floor with a minimum 20% compression fit between the substrates. Once the Flexi Coat® Finger is installed, overcoat with Flexi Coat® to all joints/junctions ensuring a minimum 20mm overlap on to all surrounding substrates.

## Installation Flexi Coat®:

Install min. 100mm depth of stone wool (minimum  $80\text{kg/m}^3$ ) with a minimum 20% compression fit between the substrates effectively flush with the upper surface of the wall and floor. Brush or trowel over the stone wool with Flexi Coat®. The stone wool must be manufactured in accordance with EN 13162: 2001. Ensure Flexi Coat® is applied to a **minimum DFT (dry film thickness) of 1mm which will require minimum 2.5mm WFT (wet film thickness)** with a minimum 20mm overlap on to all surrounding substrates.

# FLEXIBLE BARRIER IN RIGID FLOOR

## Products

1. Flexi Coat®
  2. Stone wool  $\geq 80 \text{ kg/m}^3$ , 100mm depth
  3. Steel Bracket
- or
1. & 2. Flexi Coat® Fingers

## Classification

EI120

## Supporting Construction

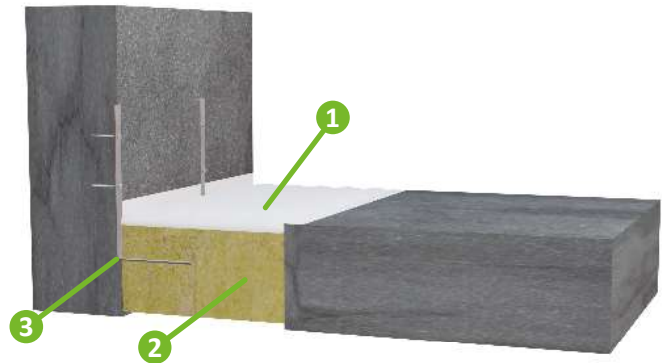
Floor: Thickness  $\geq 150\text{mm}$ , aerated concrete, concrete or brickwork, density  $\geq 670 \text{ kg/m}^3$

## Maximum Joint Width (mm)

375

## Support Fixings

Mild steel angle brackets installed mid depth of the Flexi Coat® system to provide support. The brackets are to be mechanically fixed to the substrate with a suitable fire resistant anchor.



## Installation Flexi Coat® Finger:

Install Flexi Coat® Finger into the opening flush with the upper surface of the floor with a minimum 20% compression fit between the substrates. Once the Flexi Coat® Finger is installed, overcoat with Flexi Coat® to all joints/junctions ensuring a minimum 20mm overlap on to all surrounding substrates.

## Installation Flexi Coat®:

Install min. 100mm depth of stone wool (minimum  $80\text{kg/m}^3$ ) with a minimum 20% compression fit between the substrates effectively flush with the upper surface of the floor. Brush or trowel over the stone wool with Flexi Coat®. The Stone Wool must be manufactured in accordance with EN 13162: 2001. Ensure Flexi Coat® is applied to a **minimum DFT (dry film thickness) of 1mm** which will require **minimum 2.5mm WFT (wet film thickness)** with a minimum 20mm overlap on to all surrounding substrates.

# FLEXIBLE BARRIER AT HEAD OF WALL

## Products

1. Flexi Coat®
  2. Stone wool  $\geq 80 \text{ kg/m}^3$ , 100mm depth
  3. Steel Bracket
- or
1. & 2. Flexi Coat® Fingers

## Classification

EI120

## Supporting Construction

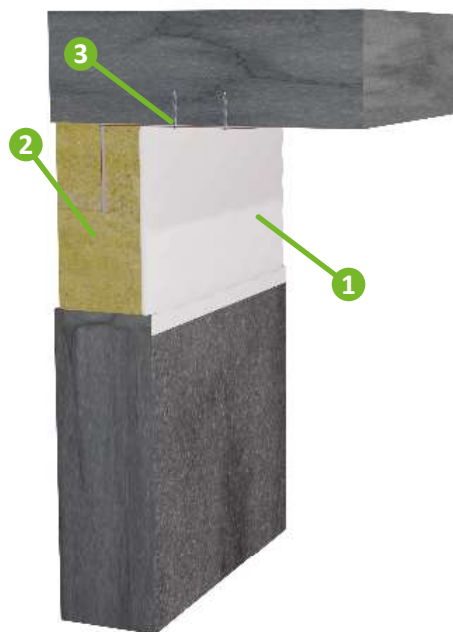
Floor: Thickness  $\geq 150\text{mm}$ , aerated concrete, concrete or brickwork, density  $\geq 670 \text{ kg/m}^3$

## Maximum Joint Width (mm)

375

## Support Fixings

Fixing – Mild steel angle brackets installed mid depth of the Flex-Coat system to provide support. The brackets are to be mechanically fixed to the substrate with a suitable fire resistant anchor.



## Installation Flexi Coat® Finger:

Install Flexi Coat® Finger into the opening flush with the upper surface of the floor with a minimum 20% compression fit between the substrates. Once the Flexi Coat® Finger is installed, overcoat with Flexi Coat® to all joints/junctions ensuring a minimum 20mm overlap on to all surrounding substrates.

## Installation Flexi Coat®:

Install min. 100mm depth of stone wool (minimum  $80\text{kg/m}^3$ ) with a minimum 20% compression fit between the substrates effectively flush with the upper surface of the floor. Brush or trowel over the stone wool with Flexi Coat®. The Stone Wool must be manufactured in accordance with EN 13162: 2001. Ensure Flexi Coat® is applied to a **minimum DFT (dry film thickness) of 1mm which will require minimum 2.5mm WFT (wet film thickness)** with a minimum 20mm overlap on to all surrounding substrates.



# FLEXIBLE CAVITY BARRIER FOR CURTAIN WALLING / FACADE

## Products

1. Flexi Coat®
2. Stone wool  $\geq 80 \text{ kg/m}^3$ , 100mm depth  
or
1. & 2. Flexi Coat® Fingers

## Classification

E120 EI90

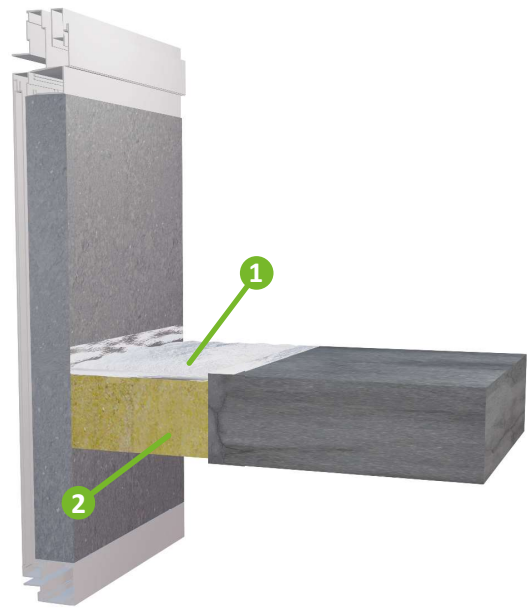
## Supporting Construction

Floor: Thickness  $\geq 150\text{mm}$ , aerated concrete, concrete or brickwork, density  $\geq 670 \text{ kg/m}^3$

Facade : Fire resistant facade element

## Maximum Joint Width (mm)

225



## Installation Flexi Coat® Finger:

Install Flexi Coat® Finger into the opening flush with the upper surface of the floor with a minimum 20% compression fit between the substrates. Once the Flexi Coat® Finger is installed, overcoat with Flexi Coat® to all joints/junctions ensuring a minimum 20mm overlap on to all surrounding substrates.

## Installation Flexi Coat®:

Install min. 100mm depth of stone wool (minimum  $80\text{kg/m}^3$ ) with a minimum 20% compression fit between the substrates effectively flush with the upper surface of the floor. Brush or trowel over the stone wool with Flexi Coat®. The Stone Wool must be manufactured in accordance with EN 13162: 2001. Ensure Flexi Coat® is applied to a **minimum DFT (dry film thickness) of 1mm which will require minimum 2.5mm WFT (wet film thickness)** with a minimum 20mm overlap on to all surrounding substrates.

# FLEXIBLE BARRIER IN FLEXIBLE AND RIGID WALL

## Products

- 1. Flexi Coat®
- 2. Stone wool  $\geq 80 \text{ kg/m}^3$ , 100mm depth  
or
- 1. & 2. Flexi Coat® Fingers

## Classification

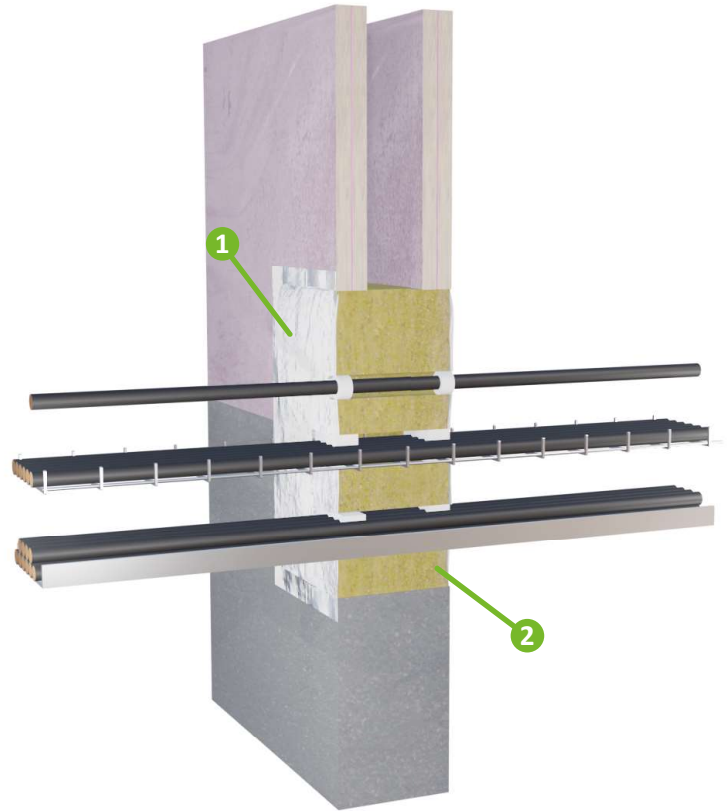
EI60

## Supporting Construction

Flexible Wall:  $\geq 100\text{mm}$   
Rigid Wall:  $\geq 100\text{mm}$

## Maximum Opening Size

730mm x 1200mm



## Penetration Specification Classification

Penetration Specification	Classification
Electrical cable up to 21mm dia	EI60
Electrical cables 22mm - 80mm dia	E60 EI45
Cable trays and ladders	E60 EI30
100mm diameter bundle telecommunication cable type 'F'	EI60
Unsheathed electrical cables up to 24mm dia	E60 EI45
Steel and Copper Conduits up to 16mm	E60 EI30

## Installation Flexi Coat® Finger:

Install Flexi Coat® Finger into the opening with a minimum 20% compression fit between the substrates and tightly packed around services. Once the Flexi Coat® Finger is installed, overcoat with Flexi Coat® to all joints/junctions ensuring a minimum 20mm overlap on to all surrounding substrates and services

## Installation Flexi Coat®:

If supplied in liquid form the Flexi Coat® is trowelled or sprayed into the aperture in or between the separating element/elements to a specified depth utilising stone wool backing material. Upon installation make sure that you install min. 100mm depth of stone wool (minimum  $80\text{kg/m}^3$ ) with a minimum 20% compression fit between the substrate and or around all services effectively, brush or trowel over the stone wool with Flexi Coat®. Ensure Flexi Coat® is applied to a minimum DFT (dry film thickness) of 1mm which will require minimum 2.5mm WFT (wet film thickness) with a minimum 20mm overlap on to all surrounding substrates/services. The stone wool must be manufactured in accordance with EN 13162: 2001.

# FLEXIBLE BARRIER IN FLEXIBLE AND RIGID WALL

## Products

1. Flexi Coat®
2. Stone wool  $\geq 80 \text{ kg/m}^3$ , 100mm depth  
or
1. & 2. Flexi Coat® Fingers
3. 40kg/m<sup>3</sup> 40mm thick stone wool,  
200mm length (L/I)

## Classification

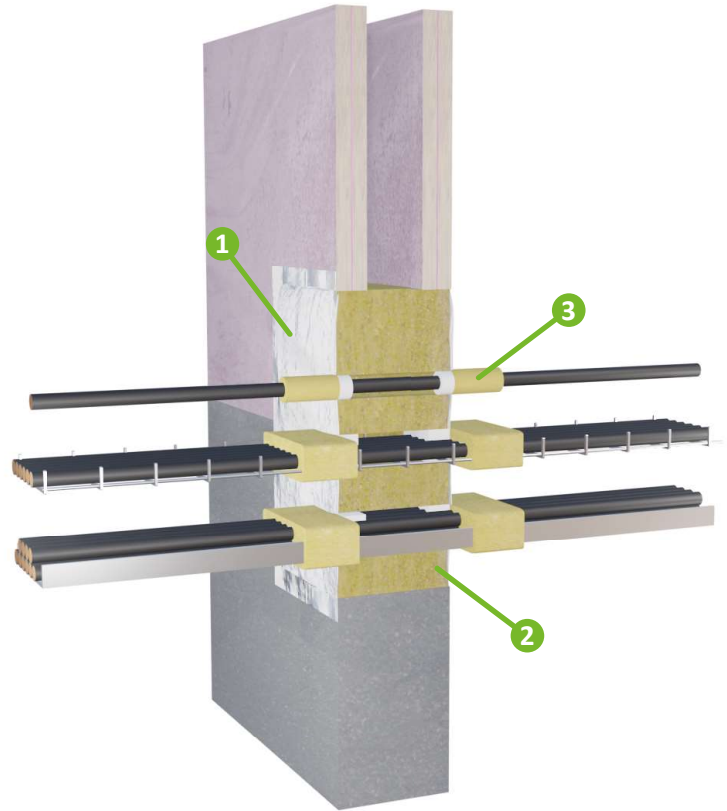
EI120

## Supporting Construction

Flexible Wall:  $\geq 100\text{mm}$   
Rigid Wall:  $\geq 100\text{mm}$

## Maximum Opening Size

730mm x 1200mm



Penetration Specification	Classification
Electrical cable up to 21 - 50mm dia	EI90
Electrical cables 51mm - 80mm dia	E90 EI60
Cable trays and ladders	EI90
100mm diameter bundle telecommunication cable type 'F'	EI120
Unsheathed electrical cables up to 24mm dia	E90 EI60
Steel and Copper Conduits up to 16mm	EI90

## Installation Flexi Coat® Finger:

Install Flexi Coat® Finger into the opening with a minimum 20% compression fit between the substrates and tightly packed around services. Once the Flexi Coat® Finger is installed, overcoat with Flexi Coat® to all joints/junctions ensuring a minimum 20mm overlap on to all surrounding substrates and services

## Installation Flexi Coat®:

If supplied in liquid form the Flexi Coat® is trowelled or sprayed into the aperture in or between the separating element/elements to a specified depth utilising stone wool backing material. Upon installation make sure that you install min. 100mm depth of stone wool (minimum  $80\text{kg/m}^3$ ) with a minimum 20% compression fit between the substrate and or around all services effectively, brush or trowel over the stone wool with Flexi Coat®. Ensure Flexi Coat® is applied to a minimum DFT (dry film thickness) of 1mm which will require minimum 2.5mm WFT (wet film thickness) with a minimum 20mm overlap on to all surrounding substrates/services. The stone wool must be manufactured in accordance with EN 13162: 2001.

# FLEXIBLE BARRIER IN FLEXIBLE AND RIGID WALL

## Products

1. Flexi Coat®
2. Stone wool  $\geq 80 \text{ kg/m}^3$ , 100mm depth  
or
1. & 2. Flexi Coat® Fingers
3. PyroPro HPE® Sealant
4. Elastomeric Insulation (CS)

## Classification

E60, EI30 U/C, C/U, C/C

## Supporting Construction

Flexible Wall:  $\geq 100\text{mm}$   
Rigid Wall:  $\geq 100\text{mm}$

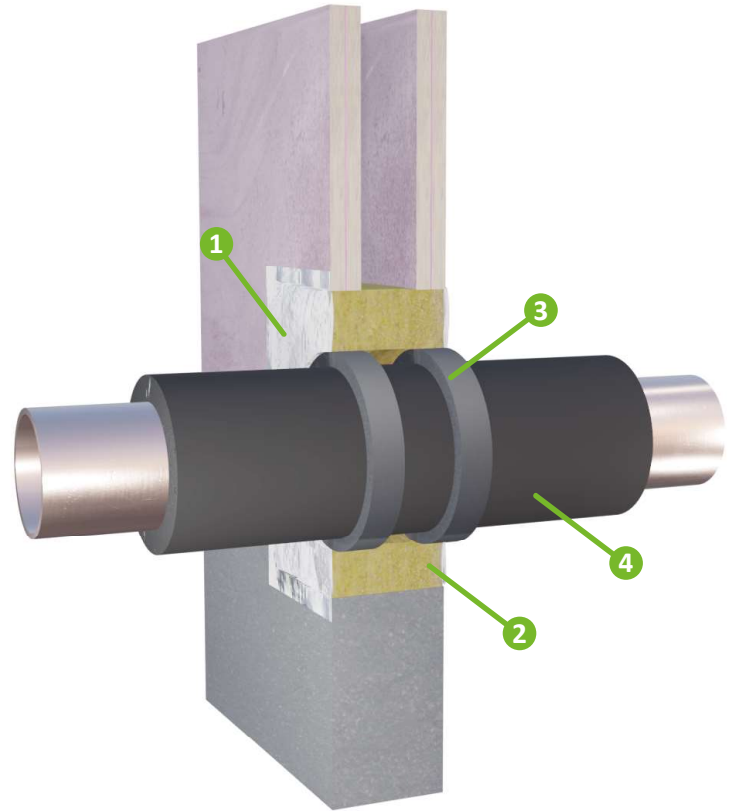
## Maximum Opening Size

730mm x 1200mm

Penetration Service Type	Pipe Diameters (mm)
Steel / Copper insulated with elastomeric insulation 20mm thick (S/C)	$\leq 159$

## Additional Installation

15mm deep x 10mm wide annulus of PyroPro HPE® to both faces of the wall around the penetration service



## Installation Flexi Coat® Finger:

Install Flexi Coat® Finger into the opening with a minimum 20% compression fit between the substrates and tightly packed around services. Once the Flexi Coat® Finger is installed, overcoat with Flexi Coat® to all joints/junctions ensuring a minimum 20mm overlap on to all surrounding substrates and services

## Installation Flexi Coat®:

If supplied in liquid form the Flexi Coat® is trowelled or sprayed into the aperture in or between the separating element/elements to a specified depth utilising stone wool backing material. Upon installation make sure that you install min. 100mm depth of stone wool (minimum  $80\text{kg/m}^3$ ) with a minimum 20% compression fit between the substrate and or around all services effectively, brush or trowel over the stone wool with Flexi Coat®. Ensure Flexi Coat® is applied to a minimum DFT (dry film thickness) of 1mm which will require minimum 2.5mm WFT (wet film thickness) with a minimum 20mm overlap on to all surrounding substrates/services. The stone wool must be manufactured in accordance with EN 13162: 2001.

# FLEXIBLE BARRIER IN FLEXIBLE AND RIGID WALL

## Products

1. Flexi Coat®
2. Stone wool  $\geq 80 \text{ kg/m}^3$ , 100mm depth  
or
1. & 2. Flexi Coat® Fingers

## Classification

E60 U/C, C/U, C/C

## Supporting Construction

Flexible Wall:  $\geq 100\text{mm}$   
Rigid Wall:  $\geq 100\text{mm}$

## Maximum Opening Size

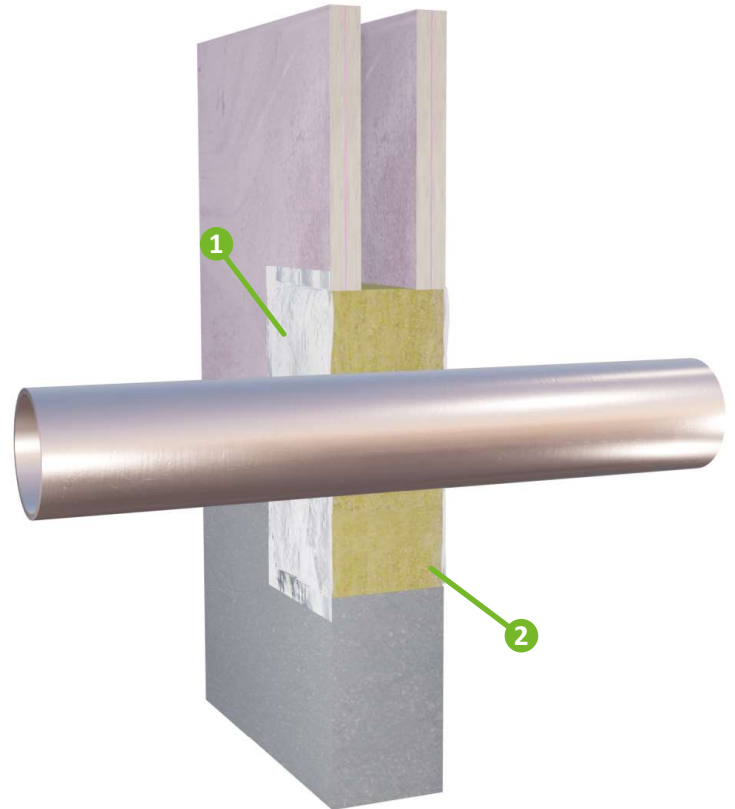
1200mm x 1200mm

## Penetration Service Type

## Pipe Diameters (mm)

Steel / Copper

$\leq 159$



## Installation Flexi Coat® Finger:

Install Flexi Coat® Finger into the opening with a minimum 20% compression fit between the substrates and tightly packed around services. Once the Flexi Coat® Finger is installed, overcoat with Flexi Coat® to all joints/junctions ensuring a minimum 20mm overlap on to all surrounding substrates and services

## Installation Flexi Coat®:

If supplied in liquid form the Flexi Coat® is trowelled or sprayed into the aperture in or between the separating element/elements to a specified depth utilising stone wool backing material. Upon installation make sure that you install min. 100mm depth of stone wool (minimum  $80\text{kg/m}^3$ ) with a minimum 20% compression fit between the substrate and or around all services effectively, brush or trowel over the stone wool with Flexi Coat®. Ensure Flexi Coat® is applied to a minimum DFT (dry film thickness) of 1mm which will require minimum 2.5mm WFT (wet film thickness) with a minimum 20mm overlap on to all surrounding substrates/services. The stone wool must be manufactured in accordance with EN 13162: 2001.

# FLEXIBLE BARRIER IN FLEXIBLE AND RIGID WALL

## Products

1. Flexi Coat®
2. Stone wool  $\geq 80 \text{ kg/m}^3$ , 100mm depth  
or
1. & 2. Flexi Coat® Fingers
3. PyroPro HPE® Sealant

## Classification

E60 U/C, C/C

## Supporting Construction

Flexible Wall:  $\geq 100\text{mm}$   
Rigid Wall:  $\geq 100\text{mm}$

## Maximum Opening Size

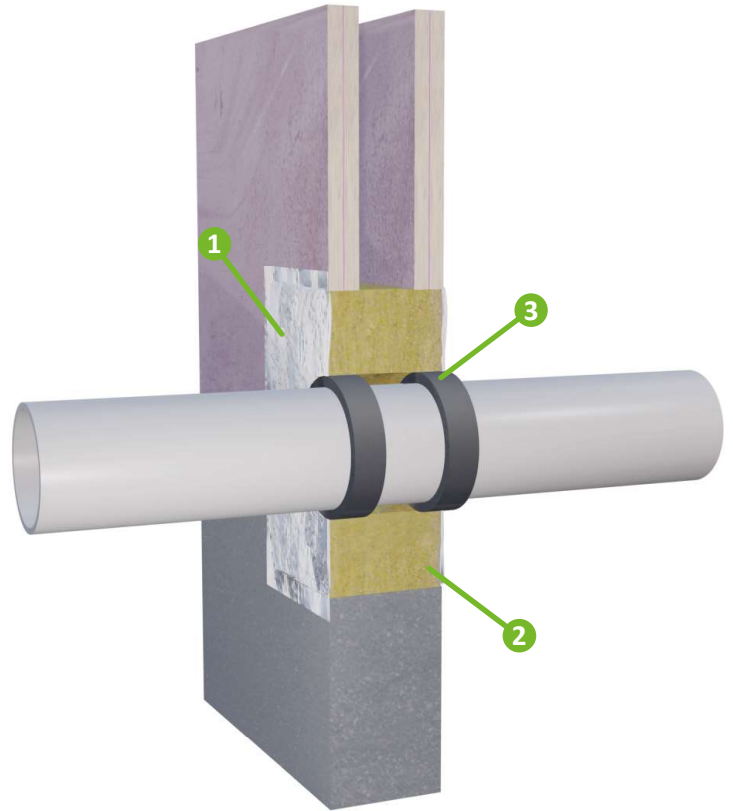
1200mm x 1200mm

Penetration Service Type	Pipe Diameters (mm)
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PVC-U	40 - 200
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## Additional Installation

25mm deep x 20mm wide annulus of PyroPro HPE® to both faces of the wall around the penetration service



## Installation Flexi Coat® Finger:

Install Flexi Coat® Finger into the opening with a minimum 20% compression fit between the substrates and tightly packed around services. Once the Flexi Coat® Finger is installed, overcoat with Flexi Coat® to all joints/junctions ensuring a minimum 20mm overlap on to all surrounding substrates and services

## Installation Flexi Coat®:

If supplied in liquid form the Flexi Coat® is trowelled or sprayed into the aperture in or between the separating element/elements to a specified depth utilising stone wool backing material. Upon installation make sure that you install min. 100mm depth of stone wool (minimum  $80\text{kg/m}^3$ ) with a minimum 20% compression fit between the substrate and or around all services effectively, brush or trowel over the stone wool with Flexi Coat®. Ensure Flexi Coat® is applied to a minimum DFT (dry film thickness) of 1mm which will require minimum 2.5mm WFT (wet film thickness) with a minimum 20mm overlap on to all surrounding substrates/services. The stone wool must be manufactured in accordance with EN 13162: 2001.

# FLEXIBLE BARRIER IN RIGID WALL

## Products

- 1. Flexi Coat®
- 2. Stone wool  $\geq 80 \text{ kg/m}^3$ , 100mm depth  
or
- 1. & 2. Flexi Coat® Fingers
- 3. 40kg/m<sup>3</sup> 40mm thick stone wool,  
200mm length (L/I)

## Classification

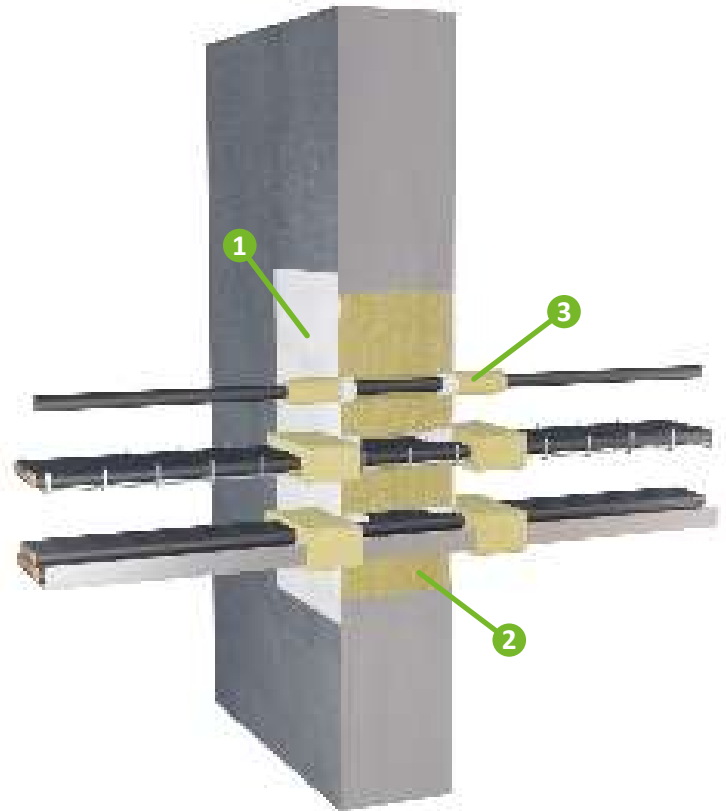
EI120

## Supporting Construction

Rigid Wall:  $\geq 150\text{mm}$

## Maximum Opening Size

900mm x 900mm



## Penetration Specification

## Classification

Electrical cable up to 21mm dia  
EI120

Electrical cable 22 - 50mm dia  
E90 EI60

Electrical cables 51mm - 80mm dia  
EI60

Cable trays and ladders  
EI60

100mm diameter bundle telecommunication cable type 'F'  
EI120

Unsheathed electrical cables up to 24mm dia  
EI120

Steel and Copper Conduits up to 16mm  
EI120

## Installation Flexi Coat® Finger:

Install Flexi Coat® Finger into the opening with a minimum 20% compression fit between the substrates and tightly packed around services. Once the Flexi Coat® Finger is installed, overcoat with Flexi Coat® to all joints/junctions ensuring a minimum 20mm overlap on to all surrounding substrates and services

## Installation Flexi Coat®:

If supplied in liquid form the Flexi Coat® is trowelled or sprayed into the aperture in or between the separating element/elements to a specified depth utilising stone wool backing material. Upon installation make sure that you install min. 100mm depth of stone wool (minimum 80kg/m<sup>3</sup>) with a minimum 20% compression fit between the substrate and or around all services effectively, brush or trowel over the stone wool with Flexi Coat®. Ensure Flexi Coat® is applied to a minimum DFT (dry film thickness) of 1mm which will require minimum 2.5mm WFT (wet film thickness) with a minimum 20mm overlap on to all surrounding substrates/services. The stone wool must be manufactured in accordance with EN 13162: 2001.

# FLEXIBLE BARRIER IN FLEXIBLE AND RIGID WALL

## Products

1. Flexi Coat®
2. Stone wool  $\geq 80 \text{ kg/m}^3$ , 100mm depth  
or
1. & 2. Flexi Coat® Fingers
3. 40kg/m<sup>3</sup> 40mm thick stone wool,  
200mm length (L/I)

## Classification

EI120 U/C, C/U, C/C

## Supporting Construction

Flexible Wall:  $\geq 100\text{mm}$   
Rigid Wall:  $\geq 100\text{mm}$

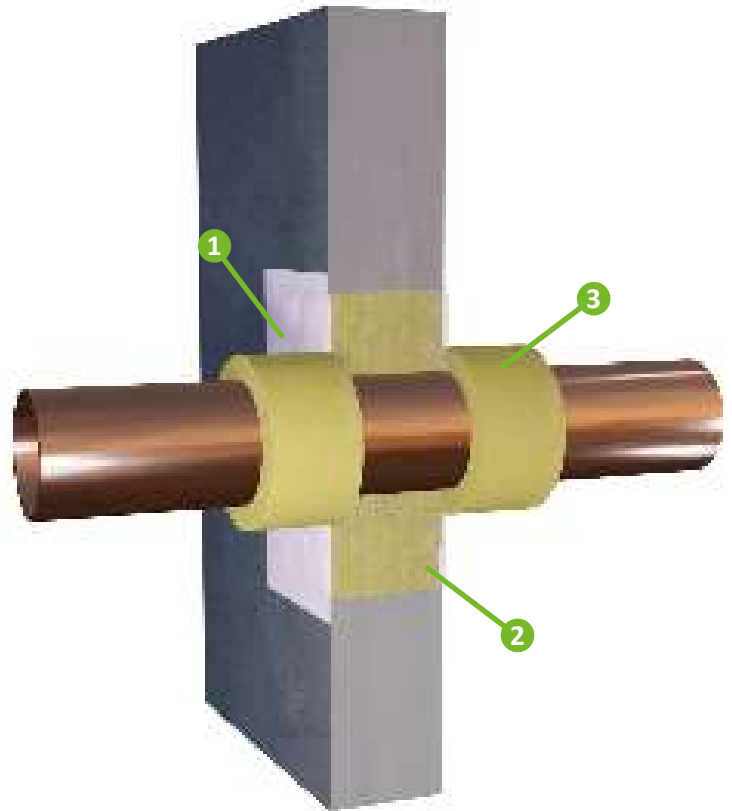
## Maximum Opening Size

900mm x 900mm

## Penetration Service Type

## Classification

Mild steel 200mm dia. and 5 - 14.2mm wall	E90 EI30
Copper or mild steel pipe 40mm dia. and 1.5 - 14.2mm wall	E120 EI60
Copper/steel pipe 159mm dia. 2 - 14.2mm wall	EI120



## Installation Flexi Coat® Finger:

Install Flexi Coat® Finger into the opening with a minimum 20% compression fit between the substrates and tightly packed around services. Once the Flexi Coat® Finger is installed, overcoat with Flexi Coat® to all joints/junctions ensuring a minimum 20mm overlap on to all surrounding substrates and services.

## Installation Flexi Coat®:

If supplied in liquid form the Flexi Coat® is trowelled or sprayed into the aperture in or between the separating element/elements to a specified depth utilising stone wool backing material. Upon installation make sure that you install min. 100mm depth of stone wool (minimum  $80\text{kg/m}^3$ ) with a minimum 20% compression fit between the substrate and or around all services effectively, brush or trowel over the stone wool with Flexi Coat®. Ensure Flexi Coat® is applied to a minimum DFT (dry film thickness) of 1mm which will require minimum 2.5mm WFT (wet film thickness) with a minimum 20mm overlap on to all surrounding substrates/services. The stone wool must be manufactured in accordance with EN 13162: 2001.