















# **Technical Description of Product**



PFC Corofil Cavity Fire Stop full fill cavity barrier is a stone wool product installed between the façade and the inner structure of a building to reinstate the fire resistance performance of the cavity.

PFC Corofil Cavity Fire Stop has been tested to EN1366-4 and EN1363-1 TRO31 and will provide up to 120 minutes fire integrity and insulation performance.

PFC Corofil Cavity Fire Stop is cut to size to suit the cavity width and can be supplied as plain stone wool, foil encapsulated, or with an integral DPC.

# **Intended Use**

PFC Corofil Cavity Fire Stop has been designed and tested to be installed within building cavities between the façade and the inner structure. It can be installed against SFS with calcium silicate fibre cement and gypsum boards, and masonry substrates in both horizontal and vertical orientations, and also installed vertically against timber frame construction with OSB and plywood sheathing boards. PFC Corofil Cavity Fire Stop can be installed in a masonry support system\* in cavities up to 450mm wide. PFC Corofil Cavity Fire Stop is suitable for cavity widths up to 600mm. PFC Corofil Cavity Fire Stop can be installed in applications with or without an integral DPC.

This data sheet shows the only applications the product has been tested in. Please ensure the product has been tested in and is suitable for your application (see PFC Corofil terms and conditions 13.1.1).

\* Please see substrates on page 5 for the masonry support system specification

# **Key Points**

- Suitable for cavities up to 600mm (please see tables from page 5).
- Can be installed against SFS with calcium silicate fibre cement board and gypsum board.
- Can be installed against aerated concrete, concrete and masonry substrates.
- Can be installed in a masonry support system (please see substrates on page 5 for specification).
- Provides up to 120 minutes fire integrity and insulation performance (please see tables from page 5).
- Can be installed against timber frame with OSB and plywood sheathing boards.
- Can be installed with 0mm, 2mm or 5mm compression depending on application and fire resistance performance required.

### **Installation Instructions**



#### Cavity widths up to 200mm wide (minimum thickness of CCFS 100mm)

- Ensure surfaces are clean, dry and free from dirt, dust, mortar and other contaminants.
- Ensure the opening to be filled has been tested with and is suitable for the product being installed.
- Cut back any insulation fixed to the inner substrate prior to installation of the PFC Corofil Cavity Fire Stop.
- Any cutting of the PFC Corofil Cavity Fire Stop on site to suit tolerances, shall be done accurately and kept to a minimum. Ensure correct compression is maintained.
- Compress the PFC Corofil Cavity Fire Stop and push into the cavity.
- When extending the length of the PFC Corofil Cavity Fire Stop, ensure the adjacent lengths have their joints tightly abutted together and are aligned flush with each other to give the appearance of a continuous strip with no gaps.
- Fill any gaps up to 5mm wide with PFC Corofil Acoustic Intumescent Sealant to a minimum depth of 10mm.

#### Cavity widths 201mm to 600mm wide (minimum thickness of CCFS 82mm)

- Ensure surfaces are clean, dry and free from dirt, dust, mortar and other contaminants.
- Ensure the opening to be filled has been tested with and is suitable for the product being installed.
- Cut back any insulation fixed to the inner substrate prior to installation of the PFC Corofil Cavity Fire Stop.
- Any cutting of the PFC Corofil Cavity Fire Stop on site to suit tolerances, shall be done accurately and kept to a minimum. Ensure correct compression is maintained.
- For masonry applications, fix PFC Corofil Multipurpose Brackets to the substrate using 1 no. non-combustible steel screw minimum 4mm x 40mm long (supplied by others) and position the leg of the brackets to the midpoint of the PFC Corofil Cavity Fire Stop. The brackets should be fixed 250mm from each end of each individual section of barrier at maximum 500mm centres.
- For calcium silicate fibre cement board applications, fix PFC Corofil Multipurpose Brackets to the substrate using 1 no. 6mm x 32mm coarse threaded steel screw suitable for the board (supplied by others) and position the leg of the brackets to the midpoint of the PFC Corofil Cavity Fire Stop. The brackets should be fixed 250mm from each end of each individual section of barrier at maximum 500mm centres.
- For gypsum board applications, fix PFC Corofil Multipurpose Brackets to the substrate using 1 no. interset hollow wall fixing M5 x 37mm with 9mm hole (supplied by others) and position the leg of the brackets to the midpoint of the PFC Corofil Cavity Fire Stop. The brackets should be fixed 250mm from each end of each individual section of barrier at maximum 500mm centres.
- For OSB and plywood board applications, fix PFC Corofil Multipurpose Brackets to the substrate using 1 no. steel screw 4mm Ø x 40mm long (supplied by others) and position the leg of the brackets to the midpoint of the PFC Corofil Cavity Fire Stop. The brackets should be fixed 250mm from each end of each individual section of barrier at maximum 500mm centres. A minimum 38mm thick timber stud must be in place directly behind the sheathing board following the line with the cavity barrier.
- When fixing the brackets to any other substrate, please contact a fixing supplier for advice on the correct fixings.

### **Installation Instructions**



- When cutting lengths to fit at the end of a run, install one bracket centrally in lengths up to 300mm, for lengths 301mm to 500mm 2 brackets should still be used distanced equally from each end.
- Push the PFC Corofil Cavity Fire Stop onto the leg of the bracket so it is spiked into the centre along the length and compress into the cavity. There should be at least 25mm between the end of the bracket and the outer face of the barrier.
- Fill any gaps up to 5mm with PFC Corofil Acoustic Intumescent Sealant to a minimum depth of 10mm.

#### Masonry Support System (minimum thickness of CCFS 82mm)

- Ensure surfaces are clean, dry and free from dirt, dust, mortar and other contaminants.
- Ensure the opening to be filled has been tested with and is suitable for the product being installed.
- Cut back any insulation fixed to the inner substrate prior to installation of the CCFS.
- The CCFS should be installed with a minimum 5mm compression.
- Any cutting of the CCFS on site to suit tolerances, shall be done accurately and kept to a minimum. Ensure that the minimum 5mm extra for the compression is maintained.
- Ensure there is a minimum of 28mm from the top of the masonry support bracket to the top of the floor slab.
- Mark where the brackets meet the CCFS and cut a notch into the CCFS.
- Compress the PFC Corofil Cavity Fire Stop and push into the cavity, ensuring the top of the CCFS sits flush with the top surface of the floor slab.
- When extending the length of the CCFS, ensure the adjacent lengths have their joints tightly abutted together and are aligned flush with each other to give the appearance of a continuous strip with no gaps.
- Fill any gaps up to 5mm with PFC Corofil Acoustic Intumescent Sealant to a minimum depth of 10mm.

### **Installation Instructions**



# **Substrates**

- Rigid walls: Minimum 100mm thick and comprise of concrete, aerated concrete or masonry, with a minimum density of 650kg/m<sup>3</sup>.
- Rigid Floors: Minimum 150mm thick and comprise of concrete, aerated concrete or masonry, with a minimum density of 650kg/m<sup>3</sup>.
- SFS system: 135mm overall thickness comprising, 90mm Metsec C stud clad internally with 2  $\times$  15mm Knauf Fire Panel, clad externally with 1  $\times$  12mm RCM Y-Wall panel and 75mm Rockwool Duo slab.
- 125mm overall thickness comprising, 90mm and 94mm Metsec steel profiles and 100mm Rockwool insulation, clad internally with 1  $\times$  12.5mm plasterboard, clad externally with 1  $\times$  12.5mm Siniat Weather Defence board.
- Masonry support system: Ancon Masonry Support System MDC/P to suit a 450mm cavity.
- Timber Frame: Comprising OSB or Plywood sheathing boards (minimum 9mm thick) with a minimum 38mm thick timber stud placed directly behind the sheathing board in line with the cavity barrier.

# **Terminology**

#### Fire resistance classes:

E = Integrity. The length of time it takes for the fire to pass to the non-fire side.

I = Insulation. The length of time it takes for the heat of the fire to pass to the non-fire side.

# **Performance Data**



# Rigid Floors minimum thickness 150mm

PFC Corofil Cavity Fire Stop installed against Rigid Floors minimum 150mm thick								
Overall Cavity width (mm)	Minimum thickness of Cavity Fire Stop (mm)	Orientation	Compression required	Brackets required	Fire resistance performance			
10 - 100	100			No	El120			
101 - 200	100	Ha di a shal	5mm	No	E120 E190			
201 - 450	02	Horizontal		Yes	E120 EI30			
451 - 595	82				E60 El30			

# Rigid Walls minimum thickness 100mm

PFC Corofil Cavity Fire Stop installed against Rigid walls minimum 100mm thick.							
Overall Cavity width (mm)	Minimum thickness of Cavity Fire Stop (mm)	Orientation	Compression required	Brackets required	Fire resistance performance		
10 - 200	100	Madia al	5mm	No	El120		
201 - 600	82	Vertical		Yes	E120 E130		

# SFS system with calcium silicate cement fibre board

PFC Corofil Cavity Fire Stop installed against SFS system (see substrates on page 5 for full specification) to masonry outer substrate.							
Overall Cavity width (mm)	Minimum thickness of Cavity Fire Stop (mm)	Orientation	Compression required	Brackets required	Fire resistance performance		
10 - 595	82	Horizontal	5mm	Yes	E120 E160		
10 - 600	82	Vertical	эшш	Yes	E120 EI30		

# Rigid Floors minimum thickness 150mm with masonry support system

PFC Corofil Cavity Fire Stop installed horizontally against an Ancon MDC/P Masonry Support System fixed to a rigid floor slab minimum 150mm thick								
Overall Cavity width (mm)	Minimum thickness of Cavity Fire Stop (mm)	Minimum gap from top of Masonry support bracket to top of floor slab (mm)	Compression required	Brackets required	Fire resistance performance			
10 - 200	82	28	5mm	No	EI120			
201 - 450	02	20	311111	Yes	E120 EI30			

# **Performance Data**



# CCFS Plain, Tested to EN1366-4

PFC Corofil Cavity Firestop installed (CCFS) Plain installed in a masonry substrate Rigid walls minimum thickness 100mm Rigid floors minimum thickness 150mm

Overall	Minimum thickness		Compression			e performance	
Cavity Width (mm)	of Cavity Fire Stop (mm)	Orientation	required	required	Integrity (minutes)	Insulation ( minutes)	
		Horizontal					
201 - 300	100	Vertical	5mm	Yes	120	120	

Please note: The products and fire resistance performances listed in this table are not included in the classification

PFC Corofil Cavity Fire Stop Plain installed against masonry substrate Rigid walls minimum thickness 100mm

Rigid floors minimum thickness 150mm

Overall Cavity	Minimum thickness	Orientation	Compression Bracks		n Compression Bracket		Fire resistance	e performance
Width (mm)	of Cavity Fire Stop (mm)	Orientation	required	required	Integrity (minutes)	Insulation (minutes)		
10.700	10.0	Horizontal			100	7.0		
10 - 300	100	Vertical	2mm	Yes	120	30		

Please note: The products and fire resistance performances listed in this table are not included in the classification

PFC Corofil Cavity Fire Stop Plain installed Plain against masonry substrate

					Fire resistance performance		
Overall Cavity Width (mm)	Minimum thickness of Cavity Fire Stop (mm)	Orientation	Compression required	Brackets required	Integrity (minutes)	Insulation (minutes)	
10 - 300	100	Vertical	Omm	Yes	120	15	

Please note: The products and fire resistance performances listed in this table are not included in the classification

### **Performance Data**



#### SFS system with gypsum board, Tested to EN1366-4

PFC Corofil Cavity Fire Stop Plain installed against SFS system (see substrates on page 5 for full specification) to masonry outer substrate

Overall Cavity	Minimum thickness	Ovientation	Compression Breakets		Fire resistance	ce performance
Overall Cavity Width (mm)	of Cavity Fire Stop (mm)	Orientation	Compression required	Brackets required	Integrity (minutes)	Insulation (minutes)
10 450	100	Horizontal	2	Yes	120	30
10 - 450	100	Vertical	2mm	Yes	120	30

Please note: The products and fire resistance performances listed in this table are not included in the classification

# Timber frame systems, Tested to EN1366-4

PFC Corofil Cavity Fire Stop Plain installed against timber framework with plywood sheathing (see substrates on page 5 for full specification) to masonry outer substrate

	Minimum thickness	a			Fire resistance	e performance
Overall Cavity Width (mm)	of Cavity Fire Stop (mm)	Orientation	Compression required	Brackets required	Integrity (minutes)	Insulation (minutes)
10 - 297	100	Vertical	2mm	Yes	60	30

Please note: The products and fire resistance performances listed in this table are not included in the classification

PFC Corofil Cavity Fire Stop Plain installed against timber framework with OSB sheathing (see substrates on page 5 for

to masonry outer substrate

					Fire resistanc	e performance
Overall Cavity Width (mm)	Minimum thickness of Cavity Fire Stop (mm)	Orientation	Compression required	Brackets required	Integrity (minutes)	Insulation (minutes)
10 - 123	100	Vertical	2mm	Yes	60	60

Please note: The products and fire resistance performances listed in this table are not included in the classification





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King Georges Trading Estate | Davis Road | Chessington | KT9 1TT T. +44 (0) 208 391 0533

 $\hbox{E. sales@pfc-corofil.com} \hspace{0.1in} | \hspace{0.1in} \hspace{0.1in$ 

