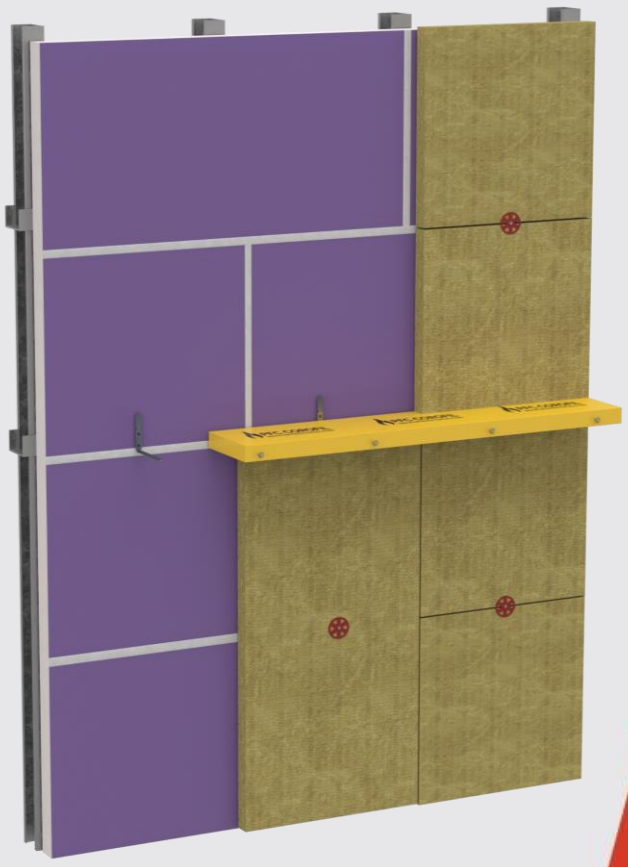
PFC COROFIL
PASSIVE FIRE PROTECTION SOLUTIONS



Product Technical Data Sheet:
TDSCOSB 25

PFC Corofil Open State Barriers COSB 25

Field of Application (1024) PAR/23650/02

Field of Application (1074) PAR/23650/03

3rd Party certification IFCC1584

CAVITY
BARRIERS

IFC Certification

NBS

ASFP

Revision 1.4 - 14/09/2023

Technical Description of Product

PFC Corofil Open State Barrier COSB 25 comprises a graphite based intumescent strip, pre-fixed to one long edge of a mineral stone wool slab. PFC Corofil Open State Barrier COSB 25 is supplied in single lengths 1000mm long, pre-cut to suit the cavity width and each length is shrink wrapped in polythene.

For cavity widths greater than 100mm PFC Corofil Open State Barrier COSB 25 is attached to the inner substrate using PFC Corofil MP or HP brackets depending on the cavity width (see table on page 5).

For cavity widths 100mm or less the barrier is fixed directly to the substrate using screws (see table on page 5).

Intended Use

PFC Corofil Open State Barriers are designed to reinstate the horizontal fire resistance performance of facades which have been designed to maintain a continuous air flow around the building and must accommodate a continuous air gap at the cavity barrier, allowing moisture to dissipate under normal circumstances, but reacting in the event of fire to rapidly close off the air gap to help prevent the spread of fire.

The fire resistance performance varies depending on the barrier used and the application it is installed within (please see performance data table on page 6).

PFC Corofil Open State Barrier range is compliant to current market requirements and has been tested to the general principles of EN1363-1 and in accordance with ASFP Technical Guidance Document 19 (TGD 19).

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).

Key Points

- Tested in accordance with ASFP TGD19 and to the general principles of EN1363-1.
- Suitable for cavities up to 450mm.
- Air gaps of up to 25mm.
- 3rd party certification.

Technical Data

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Specification

Product Description	High expansion intumescent strip fixed to either 82mm or 100mm thick high density stone wool and either polythene shrink wrapped or foil encapsulated	
Cavity sizes	Suitable for cavity widths from 40mm up to 450mm including a 25mm air gap	
Fire Resistance	Up to 180 minutes integrity Up to 180 minutes insulation (See performance data table)	Tested to general principles of EN1363-1 and in accordance with ASFP TGD 19
Colour / Appearance	Yellow polythene wrapped or foil encapsulated	

Installation Instructions

- The polythene shrink wrap or foil is an integral part of the product, please ensure it is still in place following installation.
- If insulation is installed, remove the insulation layer at the point where the barrier is to be installed.
- Ensure the correct size barrier is installed to suit the cavity width, allowing for the required air gap and specified fire performance.
- Ensure the intumescent strip faces out towards the external facade.
- When fixing into Siniat Weather Defence board, the fixings (supplied by others) must penetrate the depth of the board so they are fixed back into the framework behind.
- When fixing to masonry, the fixings (supplied by others) should be of an appropriate type and length for the surface the brackets are being fixed to.
- When fixing into other surfaces, the fixings (supplied by others) should be of an appropriate type and length for the surface the open state cavity barrier is being fixed to.
- The substrates the barriers have been tested with can be found in the table on page 6.
- Please consult a fixings manufacturer for the correct fixings for the substrate.
- Seal any gaps up to 5mm wide with PFC Corofil Acoustic Intumescent Sealant to a minimum depth of 10mm.
- For lengths shorter than 1 metre reduce the fixing centres to accommodate the required number of fixings/brackets at an equal distance apart. For lengths 200mm long or less, install one fixing/bracket centrally.
- When cutting Open State Barrier (COSB) to short lengths, ensure the polythene shrink wrap/foil is reinstated.
- Ensure the intumescent is free to expand across the air gap to the back of the external wall leaf in a fire situation.

Direct fixing

- Mechanically fix the COSB back to the inner substrate using 4 fixings (supplied by others – see fixings table on page 5) along the central line of the barrier. Ensure the head of the screw does not penetrate the intumescent part of the barrier. The screw head must not exceed 11mm in diameter.
- Ensure that adjacent lengths have their joints tightly abutted together and are aligned flush with each other to create the appearance of a continuous barrier.

Fixing with brackets

- Mechanically fix the brackets to the substrate (see fixings table on page 5 for quantity and type of bracket) using the appropriate non-combustible corrosion resistant fixings (supplied by others) per bracket.
- Spike the COSB onto the brackets centrally along the length of the barrier.
- Ensure that adjacent lengths have their joints tightly abutted together and are aligned flush with each other to create the appearance of a continuous barrier.

Installation Instructions

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Fixings						
Product reference	PFC Corofil reference	Overall cavity width (mm)	Inner substrate	Fixing type	Centres (mm)	Appearance
COSB25	1074 or 1024	40	Masonry	5.0 x 70mm CSK head pozidrive screws	250	Polythene wrapped
		41 - 300		MP brackets	500	
		301 - 450		HP brackets	500	
	1024	60	Gypsum	5.8 x 9.5mm CSK self-drilling screws	250	
		61 - 300		MP brackets	500	
	1404	80	Masonry	5.0 x 100mm CSK woodscrews in plastic plugs	250	Foil encapsulated
		425 - 450	Gypsum	HP brackets	500	

Substrates

- Masonry; minimum 150mm thick and comprise of concrete, aerated concrete or masonry, with a minimum density of 650kg/m³.
- Steel Frame System; Metsec SFS 100mm x 2mm thick faced with 12.5mm Siniat Weather Defence Board on the outer face.

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

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Fire Resistance Performance							
Product reference	PFC Corofil reference	Overall cavity width (mm)	Inner substrate	Air Gap (mm)	Cavity insulation	Fire resistance performance	
						Integrity	Insulation
COSB25	1074	40	Masonry	25	None	180	180
		41 - 300			PIR/Phenolic/ Stone Wool	60	60
	1024	40	Masonry & Gypsum		None	180	180
		41 - 300			PIR/Phenolic/ Stone Wool	120	120
		301 - 450				90	90
	1404	80	Masonry			180	180
		425 - 450	Gypsum			180	120

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