



Product Technical Data Sheet:

TDSCOSB 25

**PFC Corofil Open State
Barriers COSB 25**

3rd Party certification IFCC1584



**CAVITY
BARRIERS**



Technical Description of Product



PFC Corofil Open State Barriers combine non combustibile high density stone wool with a high expansion intumescent strip fixed to the outer face. Depending on the product ordered, it will be supplied either yellow polythene shrink wrapped or foil encapsulated.

PFC Corofil Open State Barriers are designed to close off air gaps between 25mm (this technical data sheet TDSCOSB 25) and 44mm (see technical data sheet TDSCOSB 44). The intumescent strip will expand on heating to close off the air gap between the barrier and inner surface of the facade. Galvanised steel brackets are supplied as standard, stainless steel brackets can be ordered separately if required.

The fire resistance performance varies depending on which barrier is required to suit the application and build up of the substrates (please see performance data table below).

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).

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 and hot smoke.

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.
- Provides up to 180 minutes fire integrity performance.
- Provides up to 120 minutes insulation.
- Suitable for cavities up to 450mm.
- Air gaps of 25mm and 44mm.
- 3rd party certification.

Technical Data



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 with either a 25mm or 44mm air gap	
Fire Resistance	Up to 180 minutes integrity Up to 120 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.
- Where required, fix the 65mm long pigtail screws 125mm in from one end of the barrier and at 250mm centres along the centre line of the barrier so the head of the pigtail screw protrudes across the cavity to maintain the 25mm free air gap (see table on page 5 for barriers requiring pigtail screws).

Installation Instructions

Fixings						
Product Reference	PFC Corofil reference	Overall cavity width (mm)	Inner substrate	Fixing type	Centres	Appearance
COSB25	1074 or 1024	40	Masonry	5.0 x 70mm CSK head pozidrive screws No pigtail screws	500mm centres	Polythene wrapped
		41 - 300		MP brackets 75mm pigtail screws	500mm centres 250mm centres	
		301 - 450		HP brackets 75mm pigtail screws	500mm centres 250mm centres	
	1024	60mm	Gypsum	5.8 x 95mm CSK self drilling screws. No pigtail screws	500mm centres	
		61mm - 300mm		MP brackets 75mm pigtail screws	500mm centres 250mm centres	
	1404	80	Masonry	5.0 x 100mm CSK Woodscrews in plastic plugs	250mm centres	Foil encapsulated
		425 - 450	Gypsum	HP brackets	500mm centres	

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.

The supporting construction must be classified in accordance with EN13501-2 for the required fire resistance period.

Terminology

Integrity: The length of time it takes for the fire to pass to the non fire side.

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

Performance Data

Fire Resistance Performance						
Product Reference	PFC Corofil reference	Overall cavity width (mm)	Inner substrate	Air gap (mm)	Fire resistance performance	
					Integrity (minutes)	Insulation (minutes)
COSB25	1074	40	Masonry	25	180	180
		41 - 300			60	60
	1024	40	Masonry		180	180
		41 - 300			120	45
		301 - 450			90	90
		60 - 300	Gypsum		120	120
	1404	80	Masonry		180	180
		425 - 450	Gypsum		180	120



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