

Product Technical Data Sheet:

**TDSCOSB 44**

**PFC Corofil Open State Barriers  
COSB 44**

Field of Application (1026) PAR/23650/01

3<sup>rd</sup> Party certification IFCC 1583



**CAVITY  
BARRIERS**



## Technical Description of Product



PFC Corofil Open State Barrier COSB 44 comprises a graphite based intumescent strip, pre fixed to one long edge of a mineral stone wool slab. PFC Corofil Open State Barrier COSB 44 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 44 is attached to the inner substrate using PFC Corofil MP or HP brackets depending on the cavity width (see table on page 5), the intumescent strip is mechanically fixed to the mineral stone wool. For cavity widths 100mm or less the barrier is fixed directly to the substrate using screws (see table on page 5).

## Intended Use

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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

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- 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 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 60mm up to 450mm including a 44mm air gap	
Fire Resistance	Up to 180 minutes integrity and insulation (See performance data table)	Tested to general principles of EN1363-1 and in accordance with ASFP TGD 19
Colour/Appearance	COSB 44 (1026) Grey polythene wrapped COSB 44 (1406) 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. If the framework cannot be located in the line of the bracket at 500mm centres, install the bracket using either 5mm x 50mm spring toggles or 5mm x 37mm interset bolts.
  - 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.
  - Where the width of the cavity is 101mm - 134mm, the multipurpose (MP) brackets should be installed with the 65mm long leg.
  - Where the width of the cavity is 135mm - 300mm, the multipurpose (MP) brackets should be installed with the 160mm long leg.
  - Where the width of the cavity is greater than 300mm, the high performance (HP) brackets should be installed. The length of the bracket leg may be cut down as required.
  - The leg of the bracket should penetrate the COSB centrally along the length, so the leg penetrates to a depth equal to at least 75% of the barrier width.
  - The leg of the bracket may need to be trimmed in length, depending on the width of the barrier, and the leg must be at least 25mm away from the intumescent strip fixed to the front face and must not interfere with the screws retaining the intumescent strip.
  - 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

Fixings						
Product Reference	PFC Corofil reference	Overall cavity width (mm)	Inner substrate	Fixing type	Centres	Appearance
COSB44	1026	60 - 100	10mm thick Cempanel Or 12.5mm Gypsum	Stainless steel countersunk head screws with length suitable for size of COSB and minimum 30mm depth into the substrate	250	Polythene wrapped
		101 - 300	10mm thick Cempanel or 12.5mm Gypsum or Masonry	MP brackets	500	
		301 - 450	10mm thick Cempanel or 12.5mm Gypsum or Masonry	HP brackets	500	
	1406	100	Masonry	5.0 x 100mm CSK woodscrews in plastic plugs	250	Foil encapsulated
		300 - 500	Gypsum calcium	HP brackets	500	

## Substrates

- Masonry; minimum 150mm thick and comprise of concrete, aerated concrete or masonry, with a minimum density of 650kg/m<sup>3</sup>.
- 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:

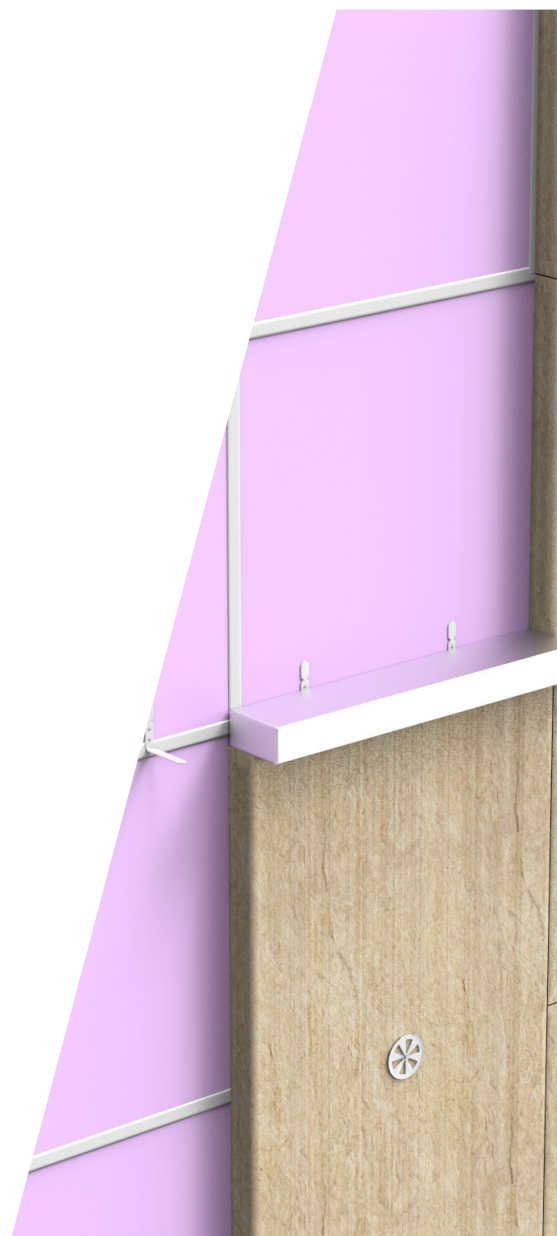
E = Integrity. The length of time it takes for the fire to pass to the non fire side.

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

Performance Data



Fire Resistance Performance							
Product Reference	PFC Corofil reference	Overall cavity width (mm)	Inner substrate	Air gap (mm)	Cavity insulation	Fire resistance performance	
						Integrity	Insulation
COSB44	1026	60	10mm CP board or 12.5mm Gypsum	44	None	180	180
		61 - 80				120	90
		60 - 300	Masonry		60	60	
		81 - 450	10mm CP board or 12.5mm Gypsum or 12.5mm Y-Wall		30	30	
	1406	300	Masonry		120	120	
		450	Gypsum		90	90	
		500	Gypsum		180	180	



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King Georges Trading Estate | Davis Road | Chessington | KT9 1TT  
T. +44 (0) 208 391 0533  
E. [sales@pfc-corofil.com](mailto:sales@pfc-corofil.com) | [tech@pfc-corofil.com](mailto:tech@pfc-corofil.com) | W. [pfc-corofil.com](http://pfc-corofil.com)

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