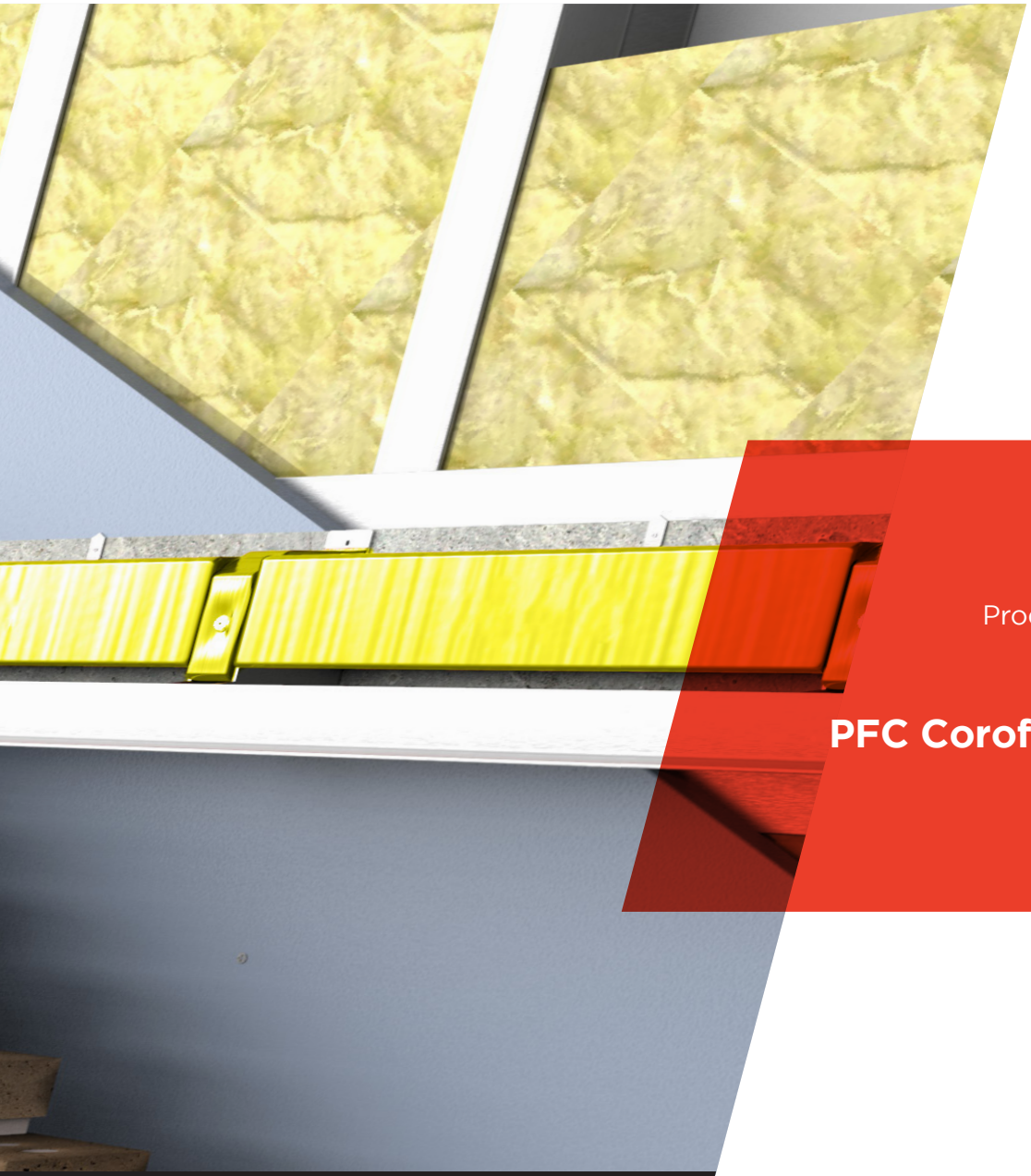
PFC COROFIL
PASSIVE FIRE PROTECTION SOLUTIONS



Product Technical Data Sheet:

TDSCOSC

PFC Corofil Open State Clip

CAVITY BARRIERS

NBS

ASFP

Revision 1 - 03/06/2022

Technical Description of Product

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PFC Corofil Open State Clip is a 4mm thick intumescent strip riveted to a stainless steel plate shaped to fit within the opening of a Masonry Support Bracket. Combined with the PFC Corofil Open State Cavity Barrier COSB 44 (1026) installed between the brackets the two products create a horizontal open state cavity barrier system, the intumescent strip will react in a fire situation to close off the air gap between the barrier and the back of the external substrate.

Tested to EN1363-1 using the principles of ASFP Technical Guidance Document 19 (TGD19), the PFC Corofil Open State Clip will provide up to 120 minutes integrity and insulation fire resistance performance (please see fire resistance performance tables on page 7).

Intended Use

PFC Corofil Open State Clip (COSC) is designed for use in combination with PFC Corofil Open State Barrier COSB 44 (1026) to provide an effective cavity fire barrier solution to ensure a continuous cavity barrier line around a Masonry Support System that also maintains drainage in normal conditions.

Key Points

- Tested to EN1363-1 and the general principles of TGD 19.
- Provides up to 120 minutes integrity and insulation fire resistance performance.
- Suitable for cavity widths between 112.5mm and 287mm.

Technical Data

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Specification

Product description	4mm intumescent strip, riveted to a stainless steel plate shaped to fit the MSB and shrink wrapped with polythene	
Cavity sizes	112.5mm - 287mm	
Box quantity	50	
Fire resistance performance	120 minutes integrity/120 minutes insulation	EN1363-1 to the general principles of TGD19
Colour/appearance	Yellow	
Transportation/storage conditions	-20˚C - +70˚C	
Halogen content	Zero	

Installation Instructions

- Insert the PFC Corofil Open State Clip COSC within the hollow of the Masonry Support Bracket (MSB). The COSC is sized to suit the internal width of the MSB support bracket, plus up to a 2mm tolerance for ease of insertion. The steel top arm of the COSC must be positioned to sit directly above the top of the MSB support bracket.
- Use the single 15mm fixing slot to the head of the COSC to mechanically fix through the plate directly to the concrete slab edge. The slot is provided to allow for fixing the COSC whilst avoiding any reinforcement bars. The COSC must remain in the correct position tight to the top of the MSB support bracket.
- A stainless-steel fixing must be used to secure the COSC, minimum 6mm diameter masonry/concrete self-tapping screw with a minimum length of 40mm is required to secure the COSC to the concrete slab edge.

Note:

- A suitable (no bracket needed) fixing for example SFS TI-S-Z10-6,3mm x 45mm which requires a pilot hole 5mm-5.2mm diameter at a depth of at least 45mm with a drill bit at least 100mm long to avoid damaging the face of the intumescing material on the cover plate.

Fixing the Open State Cavity Barriers

- It is necessary to maintain correct compression and oversizing of the PFC Corofil Open State Barrier COSB 44 (1026) in relation to the MSB support brackets. Measure the distance between the MSB support brackets, add an additional 20mm.
- Cut the COSB 44 (1026) to the dimension measured, total width between MSB support brackets plus the 20mm.

Note:

- The oversizing is to ensure the intumescent face of the COSB 44 (1026) as a minimum meets, or ~ slightly over sails, the front face of the COSC to ensure a continuous intumescent seal.
- Turn the COSB 44 (1026) over so that the intumescent strip is face down on a clean and level surface. Trim each end of the rock mineral wool of the COSB 44 (1026) to match thickness and depth of MSB Support Bracket, to ensure a tight friction fit with no gaps between the MSB Support Brackets.
- Ensure the profile of the cut COSB 44 (1026) allows tight fitting either side of the support bracket and allows a continuous intumescent seal formed by the COSB 44 (1026) and COSC.

Note:

- Behind the polythene covering to the face of the COSB 44 (1026) a steel screw is provided at the point of manufacture. This screw holds the intumescent strip mechanically to the rock mineral wool section of the cavity barrier. These screws are spaced at 250mm intervals, when running fingers over the face of the COSB 44 (1026), the position of the screw can be identified. For cut sections, it must be ensured that at least one screw is provided within the cut section of the COSB 44 (1026). If no screw is present, either select another section of COSB 44 (1026) or use one CSK stainless wood screw, with a 5mm shaft, 50mm long and a head diameter no larger than 10mm to screw through the face of the polythene covering and then through the intumescent strip to secure the intumescent strip to the rock mineral wool. The screw should sit slightly proud of the surface of the intumescent strip.

Installation Instructions

- MP brackets are supplied with 2 fixing spikes, one spike is 65mm long, the other is 160mm long, with a central predrilled section for securing the MP bracket to the substrate. For cavity barriers 76mm-90mm wide (across cavity) use MP brackets and the 65mm long spike. For cavity widths wider than 91mm use the 160mm leg and cut down to suit the barrier width as required.
- To secure the MP bracket use 5mm Ø stainless steel screws, with a maximum head diameter of 13mm and with a length and type suitable for the substrate, including wall plugs as may be required. Ensure that the screw head sits as flush as possible with the substrate. Fix through both fixing holes.
- Where sections of cavity barrier are less than 1 linear meter in length, ensure that MP brackets are positioned at a maximum 250mm from each end.
- For cut sections of cavity barrier less than or equal to 500mm in length only one MP bracket is required and should be fitted centrally to the length of cavity barrier.
- Where sections of cavity barrier exceed 500mm, fix 2 number MP brackets, to the substrate at maximum 250mm from the end of the cavity barrier, with a maximum spacing between MP brackets of 500mm.
- Push the cut section of COSB 44 (1026) firmly and centrally in between the MSB bracket/arms and onto the fixing spike, ensuring that the top of the COSB 44 (1026) sits flush with the top of the COSC.
- The rock mineral wool must be in tight compression against the sides of the MSB bracket/arms.
- The COSB 44 (1026) should be oversized for the gap between MSB. This is to ensure that intumescent strip projects past the side of the MSB bracket/arm to maintain a continuous fire seal.

Note:

- Ensure that the air gaps from the front of the COSC and the COSB 44 (1026) to the back of the outer substrate do not exceed the maximum permissible air gaps as given in fire test evidence table.

Substrates

- Masonry; minimum 150mm thick and comprise of concrete, aerated concrete or masonry, with a minimum density of 650kg/m3.

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

Installation Instructions

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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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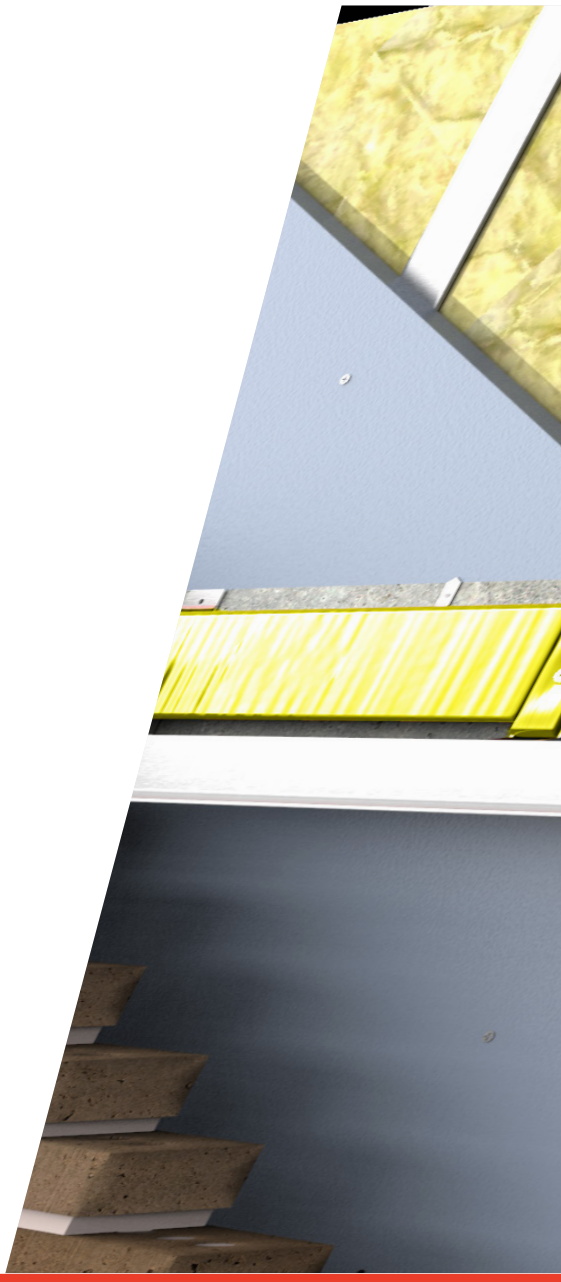
Floor minimum thickness 150mm, **Rigid Floor**

Fire Resistance Performance							
Substrate		Orientation	Tested Cavity Width (mm)	COSC width (mm)	Maximum Air Gap Range (mm)	Fire resistance Performance (minutes)	
Inner Leaf	Outer Leaf					Integrity	Insulation
Concrete/ Masonry/ Brick/ Block	Concrete/ Masonry/ Brick/ Block	Horizontal	112.5 - 287	42/50/58/64	25 - 37	120	120

PFC Corofil Open State Clip Dimensions	
Masonry Support Bracket External Width (mm)	COSC width (mm)
50	42
60	50
70	58
80	64



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