Solcourse FR Cavity Closer

Description:

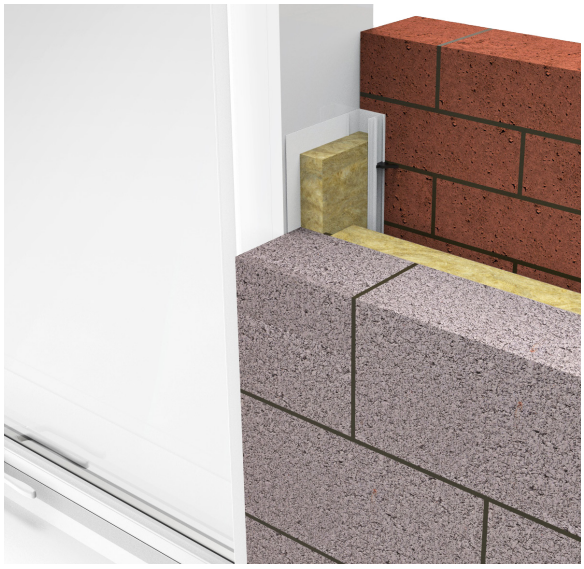
Solcourse Fire Rated Cavity Closers close cavities around windows and door openings in masonry walls, providing up to 60 minutes of fire integrity. The rigid PVCu profile is insulated with noncombustible rockfibre mineral wool which provides fire, thermal and acoustic properties.

Cold Bridges:

Cold bridges are sections through the fabric of significantly lower thermal resistance than the rest of the construction. It is most commonly found around window and door openings and usually shows itself through so-called pattern staining. A cold bridge through an external frame attracts moisture in the form of surface condensation which attracts dirt and dust. This surface condensation can also lead to mould growth and damage to internal plaster and paintwork.

Solco Cavity Closers significantly reduce the risk of cold bridging around window and door openings when fitted in accordance with our recommendations

Our cavity closers have been assessed using software that complies with the Standard for Thermal Bridge Calculations BS EN ISO 10211-2007. The conventions for calculations specified in the BRE document BR497 were also followed. The results are compared with the criteria set in the BRE Information Paper IP1/06 'Assessing the Effects of Thermal Bridging at Junctions and Around Openings' which is referenced in Building Regulations as shown below.



- **Provides up to 60 minutes fire integrity.**
- **Closes cavity around window and door reveals.**
- **Prevents cold bridging.**
- **Integral DPC helps eliminate moisture, mould, and staining from around windows and doors.**
- **Insulated with non-combustible rockfibre.**
- **Designed for cavity widths: 50 - 150mm.**
- **Single flange available for check reveal details.**
- **Third-party certificated.**

Installation:

- Cut the jamb profile to the height of the window or door opening, adding 75mm to allow the bottom edges to drop into the cavity below the sill.
- Once the jamb sections are installed, measure the required width for the sill section and cut a length to butt tightly to the jamb sections. If a longer length than 2.4m is required, refer to a jointing method on the following page.

Detail	Default F-Value	F-Value with Solco Cavity Closer	Default Ψ-Value	Ψ-Value with Solco Cavity Closer
Jamb (100mm Cavity)C	0.75	0.924	0.005	0.016
Sill (100mm Cavity))	0.75	0.944	0.04	0.011

Option 1 (First Fix):

As above and build in the jamb sections as the brickwork progresses using Solco Brick Ties (1 no. every 225mm). Ties are not required on the sill section. Simply hold in place with an adhesive or nail to block.

Option 2 (Second Fix):

Cut sections to the required size as above and push-fit once the openings are formed. Sections can be secured by nailing to block or using a suitable adhesive.

- No gaps should exist either between the cavity closer and construction or between jointed sections.
- The cavity closer must fill the cavity between brick and block, with cavity insulation cut back.
- The PVC up-stand should be fitted against the external leaf to deflect any moisture penetration through the brick.
- A plasterboard sill should be mechanically fitted over the cavity closer.

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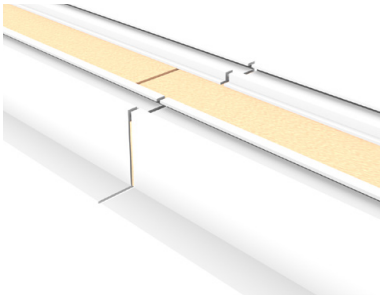
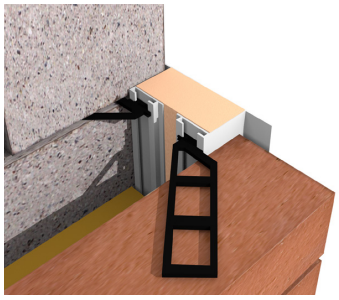
Jointing Method:

Where a longer length than the supplied 2.4m is required, the following jointing method should be used:

- Using an appropriate saw, remove 150mm of the plastic profile only, then push the exposed insulation into the next length of plastic profile.

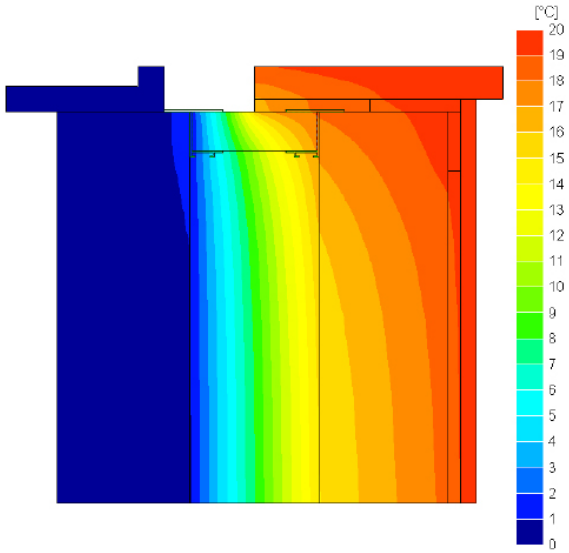




Left: Brick Ties enable quick and easy installation as the brick and blockwork progresses.

Temperature Distribution:

Below: Temperature Distribution illustrating heat loss at a window opening, where Solco Cavity Closer is fitted.



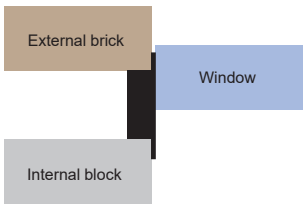
Technical Data:

Property	Value
Thermal Conductivity	0.035 W/mK
Fire Rating	Up to 60 minutes
Insulation Performance	15 minutes
Test Standard	BS 476, Part 20
Construction Type	Masonry
Orientation	Horizontal or Vertical
Integral DPC	Yes

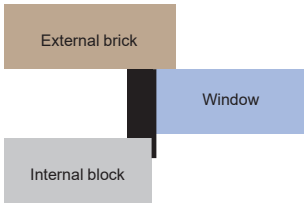
Check Reveal:

Solco Cavity Closers are available with a single flange to suit check reveal details where the window is set back behind the external brickwork.

Standard Detail



Check Reveal Detail



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Non-Standard Applications:

Where usage falls outside of the certificated scope, for example when used with external cladding, or with an internal metal frame system, the performance of the fire barrier will depend heavily upon the structural integrity and fire performance of the surrounding construction.

Specifiers must ensure that all construction elements that make up part of the internal or external leaf of the wall, including support systems, are suitable for use with a cavity fire barrier for the length of fire integrity and insulation required. Particular attention must be paid to any possible deflection or distortion which could cause gaps to form between the construction and any fire barrier installed.

In the event of a fire, Solco cannot accept liability for failure where usage is outside of the standard application, including but not limited to, where deflection or distortion has allowed gaps to form around the barrier, or where the barrier is not fitted in accordance with the manufacturer's guidelines.

Environment:

- No CFCs or HCFCs are involved in the manufacturing process.
- The material presents no known threat to the environment and is classed as ODP and GWP zero.
- Solco Cavity Closers have a Green Guide rating of A+.

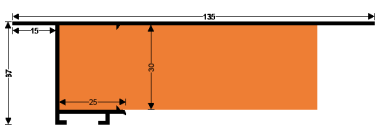
Storage and Packaging:

- Solco Cavity Closers are supplied in branded polythene packs which offer protection during transport as well as providing ease of identification on-site.
- It is not recommended that the packs are stored in direct sunlight.
- When storing the barriers for longer periods of time it is recommended that the product should be stored indoors, or under cover.

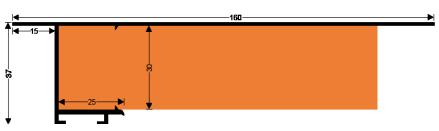
Product Code	Suitable Cavity Width	Dimensions	Lengths per Pack
EC50	50mm	50 x 2400mm	8
EC65	65mm	65 x 2400mm	8
EC75	75mm	75 x 2400mm	8
EC85	85mm	85 x 2400mm	8
EC90	90mm	90 x 2400mm	8
EC95	95mm	95 x 2400mm	8
EC100	100mm	100 x 2400mm	8
EC110	110mm	110 x 2400mm	6
EC125	125mm	125 x 2400mm	6
EC135	135mm	135 x 2400mm	6
EC150	150mm	150 x 2400mm	6
EC50R - EC150R	*50mm - 300mm*	*As above but single flange for check reveal*	*As Above*

Profile Variations:

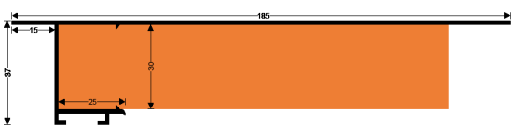
50 - 100mm cavity
135mm profile



105 - 125mm cavity
160mm profile



130 - 150mm cavity
185mm profile



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