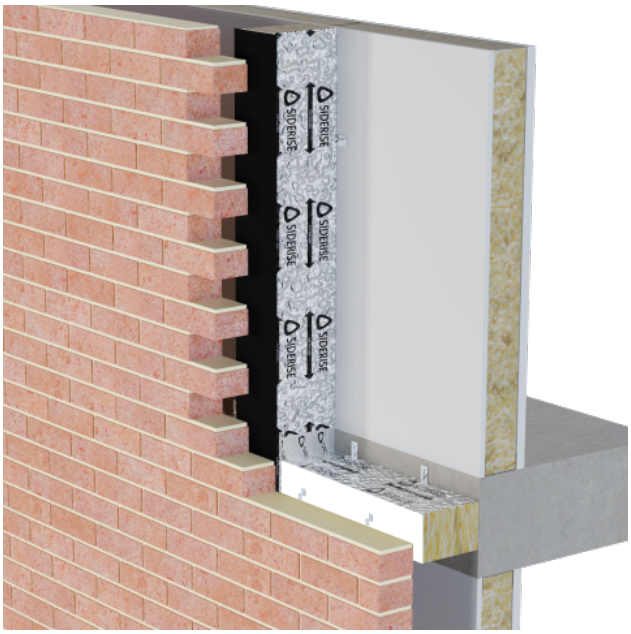
Siderise EWI Open State Cavity Barrier and Firestop



A horizontal fire and smoke barrier with integral intumescent to protect irregular cavities in masonry walls

Application

Siderise EWI Systems have been specially developed via the incorporation of an integral intumescent, which in the event of a fire, provides a reactive method of sealing masonry wall cavities that have an irregular inner face to the outer masonry leaf such as decorative features.

Siderise EWI systems are currently available for horizontal applications as Cavity Barriers or Firestops (dependent on application) in accordance with the guidance supporting the national Building Regulations, with the product codes as listed below:

- EW25-CB30
- EW25-FS120

These products represent an ideal combination of fully qualified performance and practical installation.

Where there is a vertical cavity barrier requirement, our Siderise EW vertical full fill barriers should be used in conjunction with the EWI horizontal open-state barriers in masonry wall applications.

The suitability of this product should be checked with the relevant building control and warranty provider for the project.

Product Description

Siderise EWI Systems comprise of a low resin content stone wool insulation core which is pre-compressed internally to form a resilient strip. The material is faced on two sides with a reinforced aluminium foil which provides an effective smoke barrier once the product has activated and fully sealed the void. Siderise EWI incorporates an integral reactive intumescent. The leading edge is encapsulated in a white weather-resistant polymer film.

Siderise EWI is only supplied in pre-cut strips:

- Pre-cut products are available in 1mm increments of width to suit the cavity size. Please see Table 1.
- Supplied with appropriate brackets as part of a system (see Table 1).

Siderise EWI should be installed in accordance with PD6697:2019 - 'Recommendations for the design of masonry structures to BS EN 1996-1-1 and BS EN 1996-2'.

If Siderise EWI is in contact with the outer masonry (thereby bridging the cavity), it must be installed with a Cavity Tray directly above. Where there is no contact with the outer masonry leaf (i.e. a continuous uninterrupted air gap) a cavity tray may no longer
be required depending on the specific project requirements, except where otherwise called for such as above openings. Please refer to 3rd party warranty providers, such as NHBC, LABC and Premier Guarantee for further guidance.

Fire Performance

Siderise EWI systems have been tested in accordance with TGD 19 Fire resistance test for 'open-state' cavity barriers used in the external envelope or fabric of buildings.

- Resistance to Fire - is expressed as Integrity (E) and Insulation (I) performance in minutes, please see Table 1.
- Reaction to Fire - Classification to EN 13501-1 : 'A1' (core), 'E' (intumescent) as permitted by Regulation 7(3).

Table 1 : Fire Resistance to 'General Principles of ASFP - TGD 19' (Horizontal Orientation)

Product Ref	Thickness (mm)	Void Range (mm)	Air Gap (mm)**	Bracket Requirement	Integrity (Mins)	Insulation (mins)
EW25-CB30	75	76 - 250	≤ 25	RS 350	90	30
	75	251 - 350	≤ 25	RS 450	90	30
EW25-FS120	120	76 - 250	≤ 25	RS 350*	120	120
	120	251 - 350	≤ 25	RS 450*	120	120

*For EW25-FS120 please note that the RS brackets should not penetrate the full width of the product and instead only extend 75% into the barrier width. For further information please refer to the installation instructions.

Please note:

- EW25-FS120 has only been tested in combination with 50mm thick stonewool thermal insulation (classified A1 to EN 13501-1) above and below the cavity barrier/firestop.
- Brackets are available in two forms: (G) denotes galvanised steel brackets and (S) denotes stainless steel brackets.
- RS Brackets must be installed at 400mm centres based on a 1200mm strip.
- For lengths ≤800mm 2no brackets must be used, with spacing reduced pro-rata.
- Lengths <100mm should be avoided by cutting down the adjacent barrier accordingly

- All brackets to be suitably fixed to substrate with non-combustible fixings.
- All brackets to penetrate product at mid-thickness.
- Please refer to separate installation instructions.

When considering Steel Frame Systems (SFS) the supporting substrate should be capable of providing support to the barrier for the required period of fire resistance.

For other void sizes or additional advice, please contact Technical Services.

Thermal Performance

Thermal conductivity: λ = 0.038 W/m.K ±5% (tested foil to foil) to EN 12667: 2001

Damp Proofing

Siderise EWI must be damp-proofed in accordance with PD6697:2019 - 'Recommendations for the design of masonry structures to BS EN 1996-1-1 and BS EN 1996-2'.

Technical Specification

Siderise EWI - Cavity Barrier and Firestops

Table 2 : Product Properties

Properties	Value
Reaction to fire	The reactive intumescent along the leading edge is Class 'E' to EN 13501-1. This is permitted by Regulation 7(3)(f) - Approved Document B for England & Wales.
Resistance to fire	Please see Table 1
Thermal Conductivity	λ = 0.038 W/m.K ±5% (tested foil to foil) to EN 12667: 2001
Chemical Properties	The base stone wool is chemically inert. An aqueous extract of the rock wool is neutral (pH7) or slightly alkaline. Resistant to most acids and weak alkaline solutions.
Biological Properties	Vermin and root proof and does not encourage the growth of fungi, moulds, or bacteria.
Effect of Water	Non-hygroscopic. Unaffected by humid atmosphere. Must be suitably damp proofed in accordance with codes of practice when used in masonry applications.
Compatibility	Compatible with all normal building materials.
Maintenance	No maintenance required unless disturbed.
Handling	Easy to handle but should be treated with due care to ensure material integrity and shape are maintained.
Storage	Store in dry conditions and protect from mechanical damage.

Siderise offers a range of ancillary products to complement the EWI range these include:

- **Fixing Brackets** must be used in the installation of the product. Brackets come in two types: 'G' - Galvanised Steel Brackets and 'S' - Stainless Steel Brackets.
- **Aluminium Jointing Tape** must be used at all joints and intersections:
    - RFT120/45 (120mm wide x 45m rolls)
    - Adhesive backed
    - Supplied in boxes of 8

Note – Tape should not overlap or impede the intumescent face of the EWI

Environmental

- Stone wool core is recyclable.

Additional Information Available

The following information is available for download via the website:

- Standard Details
- NBS Specification Clauses
- Installation Instructions
- Safety Data Sheet

Technical Support

For technical advice or support please contact the technical team: **technical.services@siderise.com**

For Installation Training or Site Inspections please contact: **site.services@siderise.com**

Context

The information in this datasheet is believed to be accurate at the date of publication. Siderise has a policy of continuous product improvement and reserves the right to alter or amend the specifications of products without prior notice. Siderise does not accept responsibility for the consequences of using the products described outside of the recommendations within this datasheet. Expert advice should be sought where there is any doubt about the correct specification or installation of Siderise products.

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