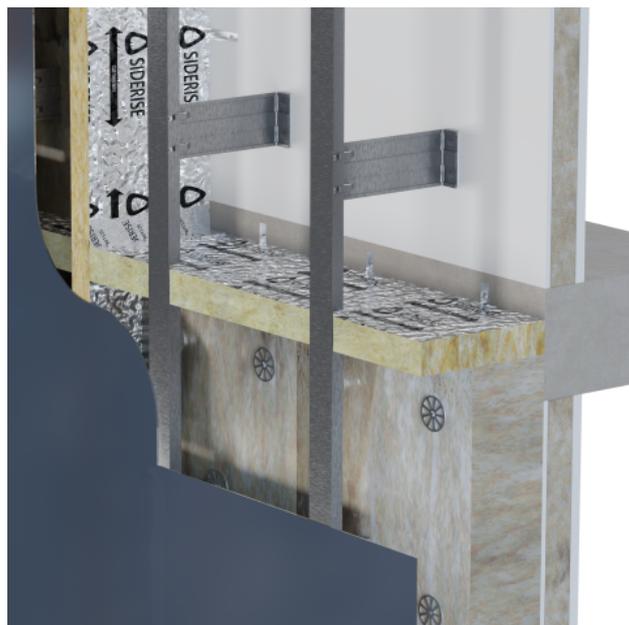


# Siderise CH Cladding Horizontal Cavity Barrier

Horizontal full fill cavity fire barriers for non-ventilated cladding façade applications in regions with no moisture drainage requirements such as the Middle East, India and Asia Pacific



## Application

**Siderise CH horizontal cavity barriers** for non-ventilated cladding facades are used to full fill the void between the external envelope and internal structure. They are installed in combination with RV vertical cavity barriers as part of a system.

The construction of CH horizontal cavity barriers offers resistance to the passage of both smoke and fire. Additionally, by fully sealing the void, they assist ventilated façades to function by maintaining air pressurisation compartmentation.

Importantly, their unique pre-compressed stone wool lamella core construction enables the vertical barriers to accommodate the serviceability movement normally associated with rainscreen façades.

Intersections between horizontal and vertical cavity barriers are simply abutted. The leading edge compresses directly against the external envelope. No intumescent strip is required.

## Product Description

**Siderise CH horizontal cavity barriers** are installed within the cavity formed between the cladding facade and the inner structural wall using appropriate Siderise support brackets. Brackets are available in either galvanised mild steel (G) or stainless steel (S).

**Siderise CH horizontal cavity barriers** for rainscreen cladding applications consist of a non-combustible stone wool lamella core, with reinforced aluminium foil faces, giving an overall reaction to fire performance of Class 'A1' to EN 13501-1.

Standard sheet sizes are 1200mm x 1150mm.

## Fire Performance

### Product Fire Performance

Siderise CH horizontal cavity barriers have been tested in accordance with EN 1366-4: 2006+A1: 2010. The cavity barriers maintained integrity (E) and insulation (I) requirements for up to 2 hours as detailed in Table 1.

The tests have been undertaken to assess the ability of the cavity barriers to reinstate the fire resistance of a lightweight aerated concrete supporting construction. This is the standard assembly for testing such cavity barrier products as it allows the performance of the individual barrier to be classified.

### System Fire Performance

Siderise cavity barrier products have been used in a growing number of large-scale system tests such as BS 8414 (1&2) and NFPA 285. These may be used to evaluate the performance of the Siderise cavity barriers within a complete cladding system. The rules for extended application of results from BS 8414 tests are subsequently defined in BS 9414.

In all cases, we recommend that the specifier and user review the specific project configuration regarding available large-scale system test data and the latest National Building Regulations, local Building Code and/or government advice.

For information regarding performance and assembly details in system tests please contact the technical team.

**Table 1: Fire Resistance to EN 1366-4**

| Product Ref | Void Width (mm) | Thickness (mm) | Compression (min.) | Integrity (Mins) | Insulation (mins) | Product Length (mm) | Bracket Requirement |
|-------------|-----------------|----------------|--------------------|------------------|-------------------|---------------------|---------------------|
| CH-30/30    | 20 - 50         | 75             | +5mm               | 60               | 30                | 1200                | None.               |
| CH-60/60    | 20 - 50         | 90             | +5mm               | 90               | 60                | 1200                | None.               |
| CH-120/120  | 20 - 50         | 120            | +5mm               | 120              | 120               | 1200                | None.               |
| CH-30/30    | 51 - 150        | 75             | +10mm              | 60               | 30                | 1200                | 2no. B65/110        |
| CH-60/60    | 51 - 150        | 90             | +10mm              | 90               | 60                | 1200                | 2no. B65/110        |
| CH-120/120  | 51 - 150        | 120            | +10mm              | 120              | 120               | 1200                | 2no. B65/110        |
| CH-30/30    | 151 - 250       | 75             | +10mm              | 60               | 30                | 1200                | 2no. B195           |
| CH-60/60    | 151 - 250       | 90             | +10mm              | 90               | 60                | 1200                | 2no. B195           |
| CH-120/120  | 151 - 250       | 120            | +10mm              | 120              | 120               | 1200                | 2no. B195           |
| CH-30/30    | 251 - 300       | 75             | +10mm              | 60               | 30                | 1200                | 2no. B355           |
| CH-60/60    | 251 - 300       | 90             | +10mm              | 90               | 60                | 1200                | 2no. B355           |
| CH-120/120  | 251 - 300       | 120            | +10mm              | 120              | 120               | 1200                | 2no. B355           |

**Please note:**

- Support brackets should be installed at 600mm fixing centres (300mm from each end).
- The brackets are supplied as standard in 1mm galvanised mild steel (G) or stainless steel (S), in a flat form for site folding.
- Lengths of the barrier are secured with these dedicated brackets, which impale the product at mid-thickness to a depth of 75% of void.
- The brackets are secured to the inner structural wall using non-combustible steel anchors or screws. These fixings are not supplied by Siderise.
- Please see separate installation instructions available on our website.

## Thermal Performance

Thermal conductivity:  $\lambda = 0.038 \text{ W/m.K}$  (tested foil to foil)

## Technical Specification

**Table 2: Product Properties**

| Properties           | Value                                                                                                                                                                                                                                                                         |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Form Supplied        | Sheets : 1200mm x 1200mm (UK and EU); 1200mm x 1150mm (RoW); Thickness is denoted by the rating<br>Pre-cut strips : 1200mm x (cavity + compression) x thickness, please see Tables 1                                                                                          |
| Product Finish       | Aluminium foil to surfaces exposed to cavity                                                                                                                                                                                                                                  |
| Density              | Nominal 75 kg/m <sup>3</sup>                                                                                                                                                                                                                                                  |
| Thermal Conductivity | $\lambda = 0.038 \text{ W/m.K}$ (tested foil to foil)                                                                                                                                                                                                                         |
| Void Sizes           | 20mm to 300mm - please see table 1                                                                                                                                                                                                                                            |
| Reaction to Fire     | Classified A1 to EN 13501-1                                                                                                                                                                                                                                                   |
| Resistance to Fire   | Please see Table 1<br>CH-30/30 cavity barriers are manufactured from CW-CB30<br>CH-60/60 cavity barriers are manufactured from CW-FS60<br>CH-120/120 cavity barriers are manufactured from CW-FS120<br>CW-FS is certified under Certifire CF 563 and Intertek WHI19-32944301. |

## Environmental

Stone wool core is recyclable

## Additional Information Available

The following information is available upon request or via download from the website:

- Standard Details
- Material Data Sheet

- Installation Instructions

## Technical Support

For technical advice, support, or to request a copy of a test or classification report - please contact:

[technical.services@siderise.com](mailto:technical.services@siderise.com)

For Installation Training or Site Inspections please contact: [site.services@siderise.com](mailto:site.services@siderise.com)

For technical advice or support in the Middle East, India or Asia Pacific contact: [smetech@siderise.com](mailto:smetech@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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