



RH & RV CAVITY BARRIERS

For use in external envelope
or fabric of buildings

RH & RV CAVITY BARRIERS

Siderise RH and RV 'Open State' cavity barriers have been specifically developed to meet the requirements for cavity barriers used in drained and ventilated façades. Their use ensures that the system will drain any moisture within the façade construction, whilst maintaining airflow and, in the event of fire, provide an effective hot smoke and fire seal.



250 City Road, London

Front cover: One Tower, Limassol

Siderise RH 'Open State' horizontal and RV vertical cavity barrier range represent the default choice for market-leading, high-performance Rainscreen Cavity Barrier applications.

- Allows continuous ventilation and drainage behind the external envelope
- Products tested in isolation and in large-scale system tests
- Reactive intumescent has rapid seal closure properties
- Horizontal barriers can incorporate up to 50mm continuous ventilated air space
- Vertical barriers accommodate cladding serviceability movement

Siderise RH Horizontal cavity barriers: Siderise has developed two 'Open State' (open void) horizontal solutions: RH25 for air gaps up to 25mm and RH50 for air gaps up to 50mm.

Siderise RH Horizontal cavity barriers may be used with a number of cladding types (for example: trapezoidal, sinusoidal, ribbed and seamed), however the maximum gap at any point must not exceed the stated 'air gap' – e.g. 25mm for RH25 and 50mm for RH50. For panels outside of these limits please contact Siderise.

The product range is compliant to current market requirements and has been tested to ASFP Guidance: 'Open State' Cavity Barrier used in External Envelope or Fabric of Buildings, utilising principles of EN 1363-1. ASFP Technical Guidance Document – TGD 19 (July 2014 revised Nov 2017) refers.

Siderise RV vertical cavity barriers for rainscreen cladding are used to full fill the void between the external envelope and internal structure.

By fully sealing the void they assist ventilated façades to function by maintaining air-pressurisation compartmentation.

Significantly, their unique stonewool 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, with Siderise foil tape RFT 120/45 applied as detailed in the installation instructions.

Third Party Certification

SIDERISE was the first manufacturer to achieve Third-Party Certification for Rainscreen Cavity Barriers.

For current details of SIDERISE certified 'Open State' Cavity Barriers, including the testing and scope of our Third-Party Certification, please refer to IFC Certification IFCC 1712.

This Certificate is available from our online Technical Resources or by contacting our Technical Support department: technical.services@siderise.com

SIDERISE RH OPEN STATE HORIZONTAL CAVITY BARRIERS

Product description

Siderise RH 'Open State' horizontal cavity barriers consist of a non-combustible stonewool lamella core, with reinforced aluminium foil faces. This primary seal has a reaction to fire performance to Class 'A1'. The exposed leading edge is also sealed with aluminium foil.

Whilst the base material is water repellent and non-hygroscopic, this predominantly enclosed arrangement affords an added degree of weather protection to the core material.

Siderise RH 'Open State' horizontal cavity barriers incorporate a continuous high performance reactive intumescent strip which is bonded to the leading edge. The intumescent material has a reaction to fire performance to Class 'E'. This is permitted by Regulation 7(3)(f) - Approved Document B for England & Wales for use on Relevant Buildings. In the event of exposure to fire, the intumescent rapidly expands and fully seals the purposely designed ventilation gap formed at the time of installation between the barrier and the rear of the cladding.

As standard, the range includes a choice of products to suit either 25mm air gaps – referred to as RH25 – or 50mm air gaps – referred to as RH50. Both options are available with either galvanised mild steel (G) or stainless steel (S) fixing brackets as part of the system.

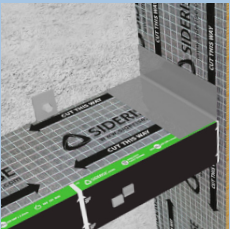
The choice of bracket is usually determined by the rainscreen system designer according to project exposure and/or location.

The leading edge of the horizontal cavity barrier is encapsulated in a weather resistant polymer film. The leading edge of the horizontal cavity barriers is encapsulated in a weather resistant polymer film. As standard the film is black, to register as a 'shadow line' behind open joints in the cladding.

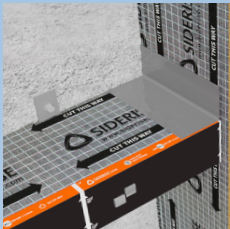


For product identification purposes, the top edges of the film used on the RH25 and RH50 cavity barriers are colour-coded and labelled to show the product fire performance rating.

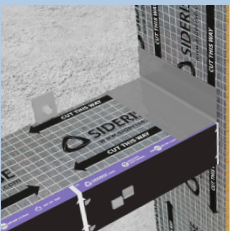
Siderise RH ‘Open State’ horizontal cavity barrier for air gaps up to 25mm



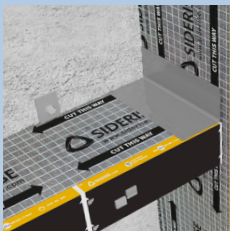
RH25-90/30



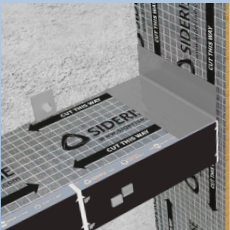
RH25-60/60



RH25-90/60



RH25-120/60

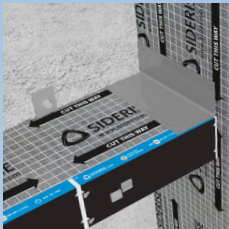


RH25-120/90

Siderise RH ‘Open State’ horizontal cavity barrier for air gaps up to 50mm



RH50-30/30



RH50-60/60

| Product | Rating | | | Colour |
|----------------|--------|-----|------|--------|
| RH25 - 120/90* | E120 | I90 | EI90 | Grey |
| RH50 - 60/60* | E60 | I60 | EI60 | Blue |
| RH25 - 90/30 | E90 | I30 | EI30 | Green |
| RH25 - 60/60 | E60 | I60 | EI60 | Orange |
| RH25 - 90/60 | E90 | I60 | EI60 | Purple |
| RH25 - 120/60 | E120 | I60 | EI60 | Yellow |
| RH25 - 120/90 | E120 | I90 | EI90 | Grey |
| RH50 - 30/30 | E30 | I30 | EI30 | Red |
| RH50 - 60/60 | E60 | I60 | EI60 | Blue |

*Intumescent strip only



SIDERISE RH OPEN STATE HORIZONTAL CAVITY BARRIERS

Standards and approvals

Siderise 'Open State' horizontal cavity barriers satisfy the requirements of:

- **England** – The Building Regulations 2010, Approved Document B (2019 edition incorporating 2020 and 2022 amendments) Volume 2, Section 9, diagram 9.1 and item 9.13 (Provision for cavity barriers requires 30 minutes Integrity and 15 minutes Insulation).
- **Wales** – The Building Regulations 2010, Approved Document B (2006 edition incorporating 2010, 2013, 2016, 2017 and 2020 amendments) Volume 2, Section 10, diagram 33 and item 10.13 (Provision for cavity barriers requires 30 minutes Integrity and 15 minutes Insulation).
- **Scotland** – The Building (Scotland) Regulations 2004 Technical Handbook 2 (December 2022 edition) Domestic, Table 2.9. (Provision for cavity barriers requires 30 minutes Integrity only).
- **Northern Ireland** – Building Regulations (Northern Ireland) 2012 Technical Document E (2012 edition incorporating 2022 amendments), Table 4.1, Diagram 4.4. (Provision for cavity barriers requires 30 minutes Integrity and 15 minutes Insulation).
- **Ireland** – Building Regulations 2006, Technical Guidance Document B (2006 edition incorporating 2020 amendments), Diagram 16 and item 3.3.4. (Provision for cavity barriers requires 30 minutes Integrity and 15 minutes Insulation).

They also meet the higher minimum fire resistance standard for cavity barriers outlined in the **LPC Design Guide for the Fire Protection of Buildings**. (Provision for cavity barriers requires 30 minutes Integrity and 30 minutes Insulation).

Fire testing – products

Siderise 'Open State' horizontal cavity barriers have been tested in accordance with ASFP TGD19 (prEN 1364-6): 'Open State' Cavity Barrier used in External Envelope or Fabric of Buildings. This test method specifies a procedure for determining the fire resistance of 'open state' cavity barriers when subjected to the standard fire exposure conditions and performance criteria stipulated in EN 1363 Part 1: 2012.

The tests have been undertaken to assess the ability of the horizontal 'open state' cavity barrier to close the ventilation gap and provide fire resistance to meet the provisions for a cavity barrier, as defined in the guidance supporting the Building Regulations. The test consists of a pre-cast aerated concrete supporting construction to test the performance of the cavity barrier without limitations due to failure of the substrates.

We advise that all 'RH' Open State Cavity Barriers are positioned so that they are projecting in front of the thermal insulation. To allow for site tolerances, a minimum projection of 6mm is recommended.

Product fire performance

Siderise RH25 'Open State' horizontal cavity barrier for maximum 25mm air gaps

Siderise have tested horizontal cavity barriers with 25mm air gap to the ASFP TGD19 method. During the fire tests, the seals achieved full effective closure in under 5 minutes. Seal temperatures remained below a 180°C rise during this activation period and maintained the EI requirements for up to EI20 and I90. See Table 1 for details.

Siderise RH50 'Open State' horizontal cavity barrier for maximum 50mm air gaps

Siderise have tested horizontal cavity barriers with 50mm air gap to the ASFP TGD19 method. During the fire tests, the seals achieved full effective closure in under 5 minutes. Seal temperatures remained below a 180°C rise during this activation period and maintained the EI requirements for up to E 60 and I 60. See Table 1 for details.

System fire performance

Siderise cavity barrier products have been used in a 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 evaluation of results from BS 8414 are subsequently defined in BS 9414.

For information regarding performance and assembly details in system tests please contact the Technical team. technical.services@siderise.com.

Data sheet includes hyperlink to System tests page on website.

Table 1: Fire classification performance to TGD 19 (prEN1364)

| Product ref | Colour | Void range (mm) | Air gap (mm)** | Integrity (mins) | Insulation (mins) | 3rd Party approval |
|--------------|--------|-----------------|----------------|------------------|-------------------|--------------------|
| RH25-120/90* | Grey | 0-25 | ≤25 | E 120 | I 90 | IFCC 1712 |
| RH50-60/60* | Blue | 0-50 | ≤50 | E 60 | I 60 | IFCC 1712 |
| RH25-90/30 | Green | 26-425 | ≤25 | E 90 | I 30 | IFCC 1712 |
| RH25-60/60 | Orange | 26-425 | ≤25 | E 60 | I 60 | IFCC 1712 |
| RH25-90/60 | Purple | 26-300 | ≤25 | E 90 | I 60 | IFCC 1712 |
| RH25-120/60 | Yellow | 26-425 | ≤25 | E 120 | I 60 | IFCC 1712 |
| RH25-120/90 | Grey | 26-425 | ≤25 | E 120 | I 90 | IFCC 1712 |
| RH50-30/30 | Red | 51-300 | ≤50 | E 30 | I 30 | IFCC 1712 |
| RH50-60/60 | Blue | 51-300 | ≤50 | E 60 | I 60 | IFCC 1712 |

*Intumescent strip only.

**To allow for on site conditions, RH25 can be used for air gaps of 25 ±3mm and RH50 can be used for air gaps of 50 ±5mm.



Creek Gate, Dubai Creek Harbour

SIDERISE RH OPEN STATE HORIZONTAL CAVITY BARRIERS

Table 2: Screw fixing requirements and barrier dimensions RH25 (voids up to 75mm) and RH50 (voids up to 100mm)

| Product Ref. | Void Range (mm) | Air Gap (mm) | Barrier Dimensions T x W (mm) | Length (mm) | Fixings Requirement |
|---------------------|-----------------|--------------|-------------------------------|-------------|---------------------|
| RH25-120/90* | 0-25 | ≤25 | 75 x 1.5 | 1200 | 3no Screws |
| RH50-60/60* | 0-50 | ≤50 | 30 x 3 | 1200 | 3no Screws |
| RH25-90/30 | 26-30 | ≤15 | 75 x 15 | 1200 | 3no Screws |
| | 31-35 | ≤20 | 75 x 15 | 1200 | 3no Screws |
| | 36-40 | ≤25 | 75 x 15 | 1200 | 3no Screws |
| | 41-45 | ≤25 | 75 x 20 | 1200 | 3no Screws |
| | 46-75 | 25 | 75 x Void-25 | 1200 | 3no Screws |
| RH25-60/60 | 26-30 | ≤15 | 90 x 15 | 1200 | 3no Screws |
| | 31-35 | ≤20 | 90 x 15 | 1200 | 3no Screws |
| | 36-40 | ≤25 | 90 x 15 | 1200 | 3no Screws |
| | 41-45 | ≤25 | 90 x 20 | 1200 | 3no Screws |
| | 46-75 | 25 | 90 x Void-25 | 1200 | 3no Screws |
| RH25-90/60 | 26-30 | ≤15 | 90 x 15 | 1200 | 3no Screws |
| | 31-35 | ≤20 | 90 x 15 | 1200 | 3no Screws |
| | 36-40 | ≤25 | 90 x 15 | 1200 | 3no Screws |
| | 41-45 | ≤25 | 90 x 20 | 1200 | 3no Screws |
| | 46-75 | 25 | 90 x Void-25 | 1200 | 3no Screws |
| RH25-120/60 | 26-30 | ≤15 | 120 x 15 | 1200 | 3no Screws |
| | 31-35 | ≤20 | 120 x 15 | 1200 | 3no Screws |
| | 36-40 | ≤25 | 120 x 15 | 1200 | 3no Screws |
| | 41-45 | ≤25 | 120 x 20 | 1200 | 3no Screws |
| | 46-75 | 25 | 120 x Void-25 | 1200 | 3no Screws |
| RH25-120/90 | 26-30 | ≤15 | 120 x 15 | 1200 | 3no Screws |
| | 31-35 | ≤20 | 120 x 15 | 1200 | 3no Screws |
| | 36-40 | ≤25 | 120 x 15 | 1200 | 3no Screws |
| | 41-45 | ≤25 | 120 x 20 | 1200 | 3no Screws |
| | 46-75 | 25 | 120 x Void-25 | 1200 | 3no Screws |
| RH50-30/30 | 51-55 | ≤40 | 75 x 15 | 1200 | 3no Screws |
| | 56-60 | ≤45 | 75 x 15 | 1200 | 3no Screws |
| | 61-65 | ≤50 | 75 x 15 | 1200 | 3no Screws |
| | 66-70 | ≤50 | 75 x 20 | 1200 | 3no Screws |
| | 71-100 | 50 | 75 x Void - 50 | 1200 | 3no Screws |
| RH50-60/60 | 51-55 | ≤40 | 90 x 15 | 1200 | 3no Screws |
| | 56-60 | ≤45 | 90 x 15 | 1200 | 3no Screws |
| | 61-65 | ≤50 | 90 x 15 | 1200 | 3no Screws |
| | 66-70 | ≤50 | 90 x 20 | 1200 | 3no Screws |
| | 71-100 | 50 | 90 x Void - 50 | 1200 | 3no Screws |

* Intumescent strip only.

- Screw fixings must be installed at 400mm centres based on a 1200mm strip. For lengths ≤800mm 2no screw fixings must be used, with spacing reduced pro-rata. Lengths <100mm should be avoided by cutting down the adjacent barrier accordingly.
- All barriers to be suitably fixed to substrate with non-combustible fixings and washers with a 10-15mm (max.) head diameter.
- For RH25 variants, all screw fixings to penetrate product at mid-thickness.
- For RH50 Intumescent strip only, the fixing should go through the top edge of the strip. For RH50 in voids of 51-100mm, the fixings should be located in order to ensure overlap between the washer and the intumescent strip.
- Please refer to separate installation instructions

Installation recommendations

Siderise RH25 'Open State' horizontal cavity barrier for maximum 25mm air gaps

These cavity barriers are installed in the void formed between the rainscreen façade and the inner structural wall using the appropriate screw fixings or **Siderise support brackets** (see Tables 2 & 3).

To prevent fire flanking to the rear of the fire stop, any thermal insulation fitted to the outer face of the structural wall must be completely cut away to accommodate the thickness of this product.

The RH25 horizontal cavity barrier is fitted with the plain mineral fibre edge against the structural wall. A 25mm clear air gap should be left between the front edge of the cavity barrier and the rear surface of the rainscreen façade.

Adjacent lengths of the horizontal cavity barrier should be tightly abutted to prevent gaps. The top surface of the joint should be sealed with **Siderise foil tape RFT 120/45**.

Siderise RH50 'Open State' horizontal cavity barrier for maximum 50mm air gaps

These cavity barriers are installed in the void formed between the rainscreen façade and the inner structural wall using the appropriate screw fixings or **Siderise support brackets** (see Table 2 & 3).

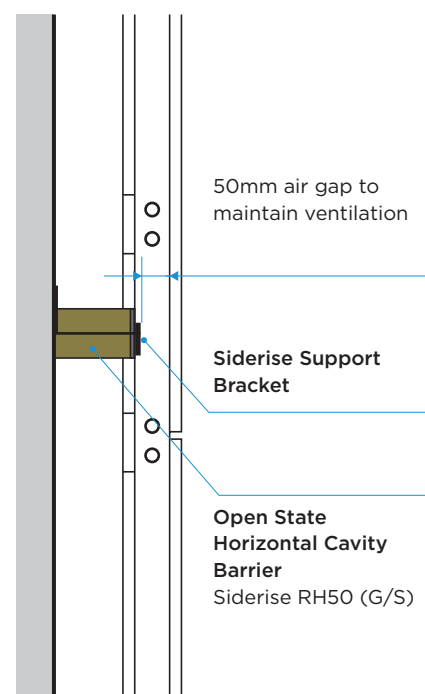
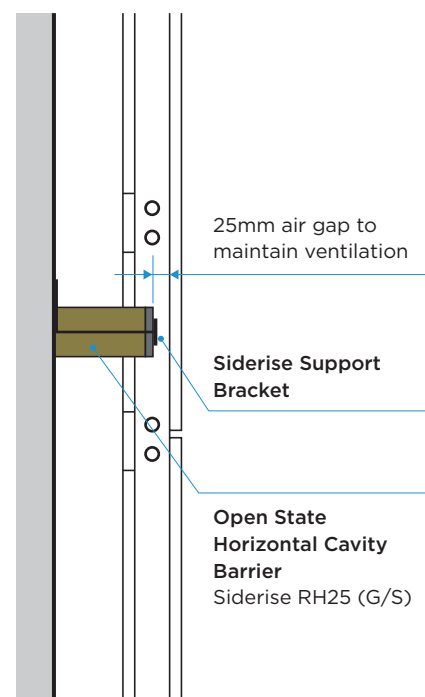
To prevent fire flanking to the rear of the fire stop, any thermal insulation fitted to the outer face of the structural wall must be completely cut away to accommodate the thickness of this product.

The RH50 horizontal cavity barrier is fitted with the plain mineral fibre edge against the structural wall. A 50mm clear air gap should be left between the front edge of the cavity barrier and the rear surface of the rainscreen façade.

Adjacent lengths of the horizontal cavity barrier should be tightly abutted to prevent gaps. The top surface of the joint should be sealed with **Siderise foil tape RFT 120/45**.

It is essential that the intumescent is installed as a continuous line passing in front of supporting rails.

A video providing further installation guidance is available online at www.siderise.com.



SIDERISE RH OPEN STATE HORIZONTAL CAVITY BARRIERS

Support brackets

A range of Siderise support brackets for horizontal cavity barriers are available for void widths of up to 425mm for 25mm air gaps or up to 300mm for 50mm air gaps (see Table 3).

Lengths of the barrier are secured with these dedicated 'split' fixing brackets, which are impaled through the product at mid thickness.

The brackets are drilled on site and secured to the inner structural wall using non-combustible steel anchors or screws. These fixings are not supplied by Siderise.

Please note:

For cut lengths $\leq 800\text{mm}$ a minimum of 2 brackets per length must be used. Lengths $< 100\text{mm}$ should be avoided by cutting down the adjacent barrier accordingly. When using Siderise support brackets, pre-fitting the brackets to the product is recommended prior to fixing to the wall.

Siderise RH25 'Open State' horizontal cavity barrier for maximum 25mm air gaps

(See Table 3)

To facilitate bracket penetration, a small horizontal cut should be made in the face intumescent strip coinciding with the bracket's exit point.

The protruding split ends should be trimmed to 10-20mm and counter-folded to retain the product.

Siderise RH50 'Open State' horizontal cavity barrier for maximum 50mm air gaps

(See Table 3)

Siderise RH50-30/30 and RH50-60/60 must be installed with product logo tape on the top face. This is to ensure that the intumescent is located at the bottom of the barrier, thus closest to fire.

The protruding split ends should be trimmed to 10-20mm and counter-folded to retain the product.

For RH50-60/60, the split end facing down will need to be trimmed to 20mm to ensure overlap with the intumescent.

Table 3: Bracket fixing requirements and barrier dimensions for for RH25 (voids greater than 75mm) and RH50 (voids greater than 100mm)

| Product Ref. | Void Range (mm) | Air Gap (mm) | Barrier Dimensions T x W (mm) | Length (mm) | Bracket Requirement |
|--------------------|-----------------|--------------|----------------------------------|-------------|------------------------|
| RH25-90/30 | 76 - 250 | 25 | 75 x Void -25 | 1200 | 3no RS 350 G/S |
| | 251-350 | 25 | 75 x Void -25 | 1200 | 3no RS 450 G/S |
| | 351-425 | 25 | 75 x Void -25 | 1200 | 3no RS 550 G/S |
| RH25-60/60 | 76 - 250 | 25 | 90 x Void -25 | 1200 | 3no RS 350 G/S |
| | 251-350 | 25 | 90 x Void -25 | 1200 | 3no RS 450 G/S |
| | 351-425 | 25 | 90 x Void -25 | 1200 | 3no RS 550 G/S |
| RH25-90/60 | 76 - 250 | 25 | 90 x Void -25 | 1200 | 3no RS 350 G/S |
| | 251-300 | 25 | 90 x Void -25 | 1200 | 3no RS 450 G/S |
| RH25-120/60 | 76 - 250 | 25 | 120 x Void -25 | 1200 | 3no RS 350 G/S |
| | 251-350 | 25 | 120 x Void -25 | 1200 | 3no RS 450 G/S |
| | 351-425 | 25 | 120 x Void -25 | 1200 | 3no RS 550 G/S |
| RH25-120/90 | 76 - 250 | 25 | 120 x Void -25 | 1200 | 3no RS 350 G/S |
| | 251-350 | 25 | 120 x Void -25 | 1200 | 3no RS 450 G/S |
| | 351-425 | 25 | 120 x Void -25 | 1200 | 3no RS 550 G/S |
| RH50-30/30 | 101 - 250 | 50 | 75 x Void -50 | 1200 | 3no RS 350 G/S |
| | 251-300 | 50 | 75 x Void -50 | 1200 | 3no RS 450 G/S |
| RH50-60/60 | 101 - 250 | 50 | 90 x Void -50 | 1200 | 3no RS 350 G/S |
| | 251-300 | 50 | 90 x Void -50 | 1200 | 3no RS 450 G/S |

Please note:

- 'T' refers to barrier thickness. 'W' refers to barrier width.
- Brackets are available in two forms: (G) denotes galvanised steel brackets and (S) denotes stainless steel brackets.
- 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 are to be suitably fixed to the substrate with non-combustible fixings.
- All brackets to penetrate product at mid-thickness The protruding split ends should be trimmed to 10-20mm and counterfolded to retain the product. For RH50-60/60, the split end facing down will need to be trimmed to 20mm to ensure overlap with the intumescent.
- Please refer to separate installation instructions.

SIDERISE RV VERTICAL CAVITY BARRIERS

Product description

Siderise RV vertical cavity barriers for rainscreen cladding applications consist of a non-combustible stonewool lamella core, with reinforced aluminium foil faces, giving an overall reaction to fire performance to Euro Class 'A1'.

Whilst the base material is water repellent and non-hygroscopic, this predominantly enclosed arrangement affords an added degree of weather protection to the core material.

Siderise RV vertical cavity barriers are used to full fill the void between the external envelope and internal structure. The leading edge compresses directly against the external envelope, therefore no intumescent strip is required.

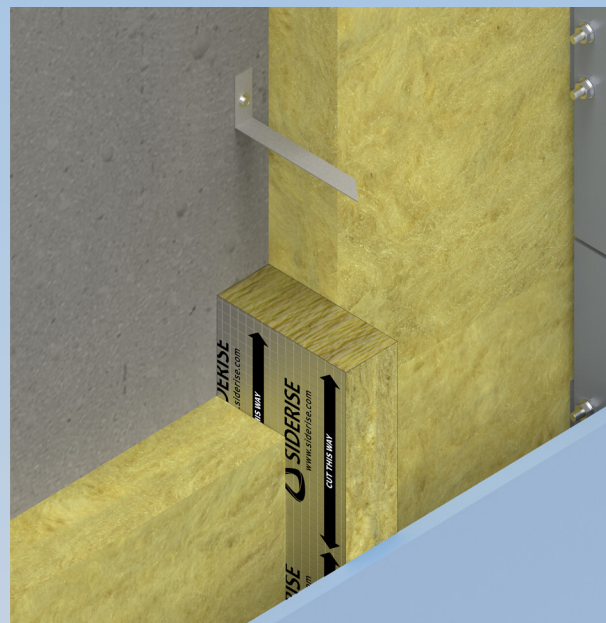
The construction offers an excellent resistance to the passage of both smoke and fire. Additionally, by fully sealing the void, they assist ventilated façades to function by maintaining air-pressurisation compartmentation.

Importantly, the Siderise RV vertical cavity barriers unique stonewool lamella core construction enables the vertical barriers to accommodate the serviceability movement normally associated with rainscreen façades.

Third-Party Certification

For current details of Siderise certified RV vertical cavity barriers, including the testing and scope of our Third-Party Certification, please refer to Certifire Certificate Number CF 6028 & IFC Certification IFCC 1712.

This Certificate is available from our online Technical Resources or by contacting our Technical Support department: technical.services@siderise.com.



Siderise RV vertical cavity barrier



SIDERISE RV VERTICAL CAVITY BARRIERS

Standards and approvals

Siderise RV vertical cavity barriers satisfy the requirements of:

- **England** – The Building Regulations 2010, Approved Document B (2019 edition incorporating 2020 and 2022 amendments) Volume 2, Section 9, diagram 9.1 and item 9.13 (Provision for cavity barriers requires 30 minutes Integrity and 15 minutes Insulation).
- **Wales** – The Building Regulations 2010, Approved Document B (2006 edition incorporating 2010, 2013, 2016, 2017 and 2020 amendments) Volume 2, Section 10, diagram 33 and item 10.13 (Provision for cavity barriers requires 30 minutes Integrity and 15 minutes Insulation).
- **Scotland** – The Building (Scotland) Regulations 2004 Technical Handbook 2 (December 2022 edition) Domestic, Table 2.9.

(Provision for cavity barriers requires 30 minutes Integrity only).

- **Northern Ireland** – Building Regulations (Northern Ireland) 2012 Technical Document E (2012 edition incorporating 2022 amendments), Table 4.1, Diagram 4.4. (Provision for cavity barriers requires 30 minutes Integrity and 15 minutes Insulation).
- **Ireland** – Building Regulations 2006, Technical Guidance Document B (2006 edition incorporating 2020 amendments), Diagram 16 and item 3.3.4. (Provision for cavity barriers requires 30 minutes Integrity and 15 minutes Insulation).

They also meet the higher minimum fire resistance standard for cavity barriers outlined in the **LPC Design Guide for the Fire Protection of Buildings**. (Provision for cavity barriers requires 30 minutes Integrity and 30 minutes Insulation).

Fire testing – products

Siderise RV vertical cavity barriers have been tested in accordance with EN 1366-4:2006 + A1:2010.

The tests have been undertaken to assess the ability of the vertical cavity barrier products to provide a period of fire resistance and meet the provisions for a cavity barrier, as defined in the guidance supporting the Building Regulations. The test consists of a pre-cast aerated concrete supporting construction to test the performance of the cavity barrier without limitations due to failure of the substrates.

Product fire performance

Siderise RV vertical cavity barriers fire performance is based on testing to EN 1366-4:2006 + A1:2010.

The cavity barriers provided the E and I requirements as detailed in Table 5.

Table 4: Resistance to Fire Performance

| Product type | Thickness (mm) | Void range (mm) | Compression (minimum) | Integrity (mins) | Insulation (mins) | 3rd Party Approval |
|--------------|----------------|-----------------|-----------------------|------------------|-------------------|---------------------|
| RV-90/30 | 75 | 20 - 50 | +10% | 90 | 30 | CF 6028 & IFCC 1712 |
| RV-90/30 | 75 | 51 - 450 | +10mm | 90 | 30 | CF 6028 & IFCC 1712 |
| RV-90/60 | 90 | 20 - 50 | +10% | 90 | 60 | CF 6028 & IFCC 1712 |
| RV-90/60 | 90 | 51 - 450 | +10mm | 90 | 60 | CF 6028 & IFCC 1712 |
| RV-120/120 | 120 | 20 - 50 | +10% | 120 | 120 | CF 6028 & IFCC 1712 |
| RV-120/120 | 120 | 51 - 450 | +10mm | 120 | 120 | CF 6028 & IFCC 1712 |

Please note:

Integrity and Insulation ratings in the above tables refer to performance in product fire tests to EN1366-4:2006+A1: 2010.

In all cases, we recommend that the specifier and user review the specific project configuration regarding available large-scale system test data and in light of the latest National Building Regulations, local Building Code, and/or government advice. For voids greater than 450mm, please contact our Technical services team for further information.

For voids up to 50mm: measured cavity 10% compression is required: for voids greater than 50mm: measured cavity + 10mm compression is required.

System fire performance

Siderise cavity barrier products have been used in a 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.

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

Installation recommendations

Siderise RV vertical cavity barriers are installed within the cavity formed between the rainscreen façade and the inner structural wall using the appropriate **Siderise support brackets** (see Table 5).

The RV cavity barrier is fitted under compression to completely fill

the void. For voids up to 50mm a nominal 10% compression is required, for voids greater than 50mm a nominal 10mm compression is required. The product is installed with the plain mineral fibre edge positioned against the structural wall.

To prevent fire flanking to the rear of the fire stop, any thermal insulation fitted to the outer face of the structural wall must be completely cut away to accommodate the thickness of the vertical cavity barrier.

Adjoining lengths of this product should be tightly abutted to prevent gaps. Joints should be sealed with **Siderise foil tape RFT 120/45** to both sides.

A video is available on the website which provides further guidance on the installation of Siderise RH and RV cavity barriers.

Support brackets

A range of **Siderise support brackets** for the vertical cavity barriers are available for cavity widths of up to 450mm (see Table 5). Lengths of the barrier are supported with these dedicated brackets which impale the product at mid thickness to depth 75% of void and 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. They incorporate pre-notched indents to aid this process.

The brackets are drilled on site and secured to the inner structural wall using non-combustible steel anchors or screws. These fixings are not supplied by Siderise.

Table 5: Brackets and centres for installation of Siderise vertical cavity barriers

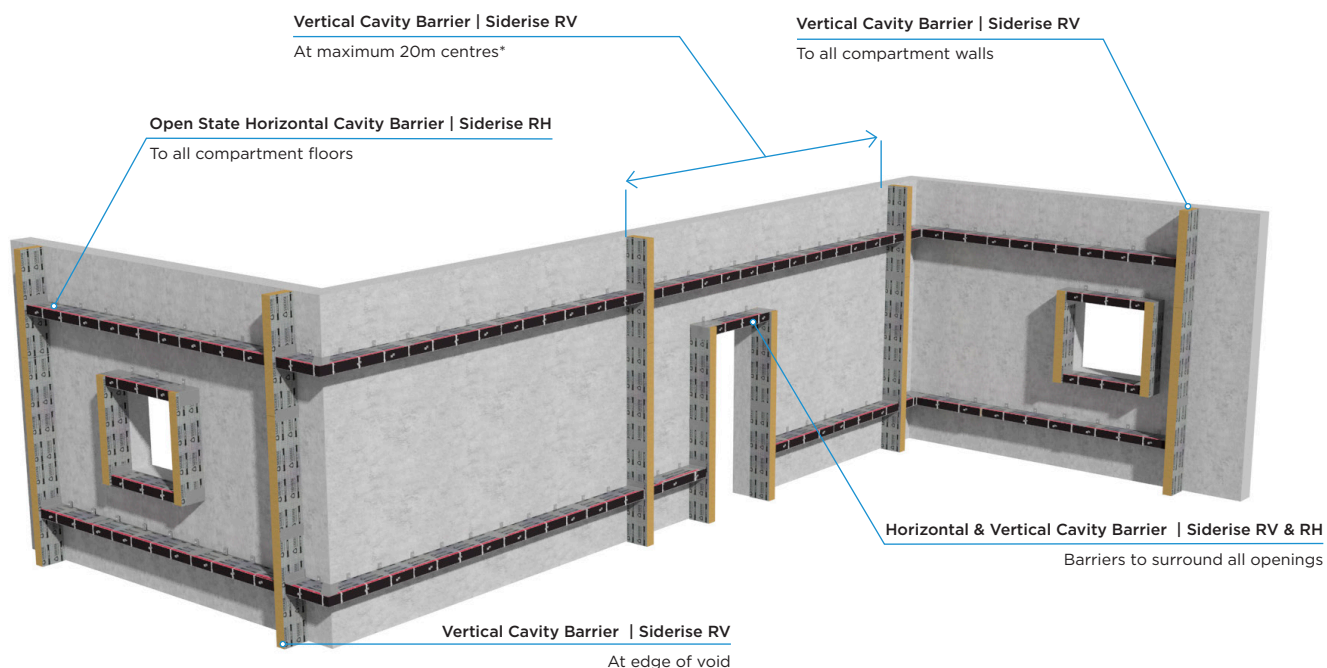
| Product type | Voids (mm) | | | | | | | | | |
|-------------------|------------|-----|----------|----------|-----------|----------|-----------|----------|-----------|----------|
| | 20 – 50 | | 51 – 150 | | 151 – 240 | | 241 – 300 | | 301 – 450 | |
| RV-90/30 | N/A | N/A | B65/110 | 600 Ctrs | B195 | 600 Ctrs | B355 | 600 Ctrs | B355 | 600 Ctrs |
| RV-90/60 | N/A | N/A | B65/110 | 600 Ctrs | B195 | 600 Ctrs | B355 | 600 Ctrs | B355 | 600 Ctrs |
| RV-120/120 | N/A | N/A | B65/110 | 600 Ctrs | B195 | 600 Ctrs | B355 | 600 Ctrs | B355 | 600 Ctrs |

Please note:

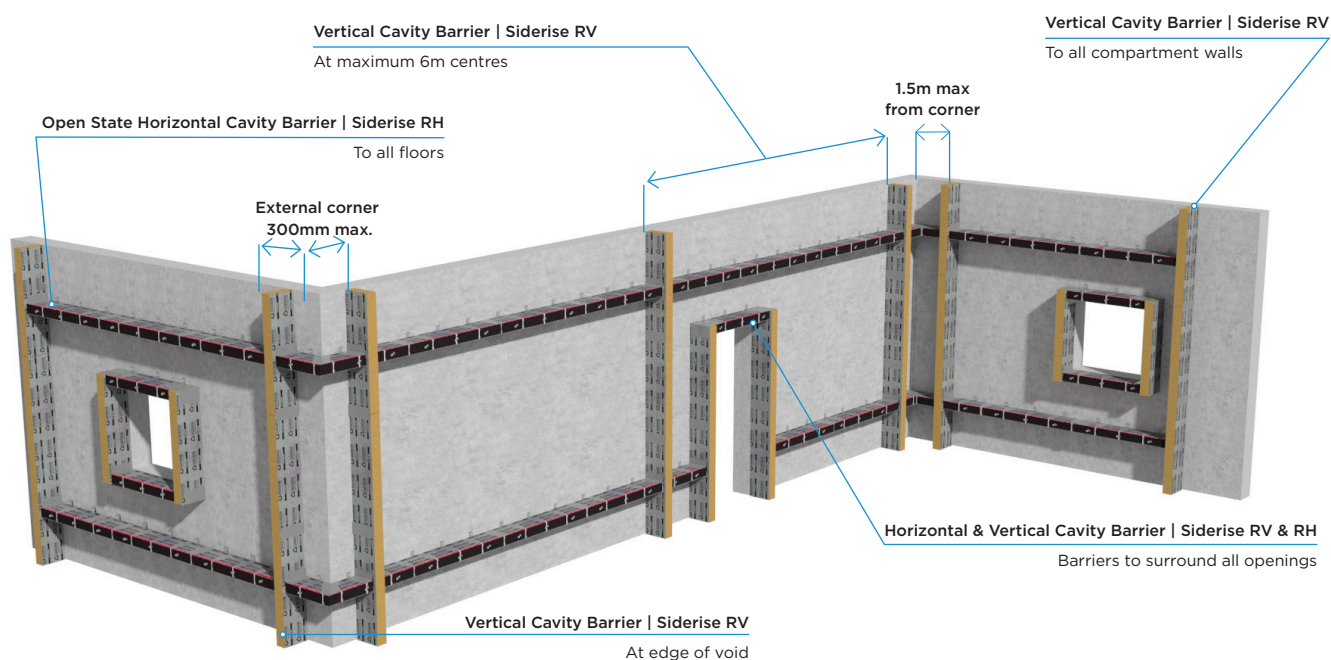
- Brackets are available in two forms: (G) denotes galvanised steel brackets and (S) denotes stainless steel brackets.
- Brackets must be installed at 600mm centres based on a 1200mm strip. For lengths ≤800mm 2no brackets must be used, with spacing reduced pro-rata. Lengths <100mm should be avoided by cutting down the adjacent barrier.
- All brackets are to be suitably fixed to the substrate with non-combustible fixings.
- All brackets to penetrate product at mid-thickness.
- Please refer to separate installation instructions accordingly.

SIDERISE RV VERTICAL CAVITY BARRIERS

Compartmentation: Approved Document B Volume 2, 2019 edition incorporating 2020 and 2022 amendments. England and Wales.



Compartmentation: NHBC Standards 2024 Section 6.9.18**



Please note:

The above illustrations reflect typical cavity barrier locations and are presented for guidance purposes only. The specifier and user must seek formal approval regarding cavity barrier location requirements on a project basis.

*Subject to reaction to fire classification of surface/product exposed in cavity.

**In addition to requirements within ADB (indicated above) or local regulation guidance.

Table 6: Extract from Approved Document B2 Table 9.1: Maximum dimensions of cavities in buildings other than dwellings (Purpose Groups 2-7)

| Location of cavity | Class of surface/product exposed in cavity (excluding the surface of any pipe, cable or conduit, or any insulation to any pipe) | Maximum dimensions in any direction (m) |
|----------------------------|---|---|
| | European class | |
| Between roof and a ceiling | Any | 20 |
| Any other cavity | Class C-s3,d2 or better | 20 |
| | Worse than Class C-s3,d2 | 10 |

Please note: The façade designer needs to satisfy themselves that the materials facing into the cavity comply with the requirements of the table.

Technical specification

Siderise RH 'Open State' horizontal cavity barriers

| | |
|----------------------|---|
| Form supplied | 1200mm long. Supplied pre-cut in width to suit advised void size and complete with brackets if applicable |
| Colour | Horizontal – RH25 – black leading edge / green, orange, purple, yellow or grey coloured identification tape (see page 3) Horizontal – RH50 – black leading edge / red or blue identification tape |
| Finish | Aluminium foil to top and bottom surfaces |
| Density | Nominal 75Kg/m ³ |
| Thermal conductivity | $\lambda = 0.038 \text{ W/ m.K}$ (foil to foil) |
| Void sizes | *Intumescent Strip only: RH25-120/90 permissible for voids up to 25mm RH50-60/60 permissible for voids up to 50mm. RH25-90/30 permissible for voids up to 400mm + 25mm air gap = 425mm o/a void RH25-60/60 permissible for voids up to 400mm + 25mm air gap = 425mm o/a void RH25-90/60 permissible for voids up to 275mm + 25mm air gap = 300mm o/a void RH25-120/60 permissible for voids up to 400mm + 25mm air gap = 425mm o/a void RH25-120/90 permissible for voids up to 400mm + 25mm air gap = 425mm o/a void RH50-30/30 permissible for voids up to 250mm + 50mm air gap = 300mm o/a void RH50-60/60 permissible for voids up to 250mm + 50mm air gap = 300mm o/a void |
| Fire resistance | For product fire performance see Table 1 |
| Reaction to fire | The primary stonewool seal is Euro Class 'A1' The reactive intumescent along the leading edge is Euro Class 'E'. This is permitted by Regulation 7(3)(f) - Approved Document B for England & Wales for use on Relevant Buildings. |

Siderise RV vertical cavity barriers

| | |
|----------------------|---|
| Form supplied | 1200mm long. Supplied pre-cut in width to suit advised void size and complete with brackets if applicable or in sheets of 1200 x 1200mm and brackets to be ordered separately |
| Colour | No colour. Stonewool exposed to leading edge |
| Finish | Aluminium foil to top and bottom surfaces |
| Density | Nominal 75Kg/m ³ |
| Thermal conductivity | $\lambda = 0.038 \text{ W/ m.K}$ (foil to foil) |
| Void sizes | RV-90/30 permissible for voids up to 450mm RV-90/60 permissible for voids up to 450mm RV-120/120 permissible for voids up to 450mm |
| Fire resistance | For product fire performance see Table 4 |
| Reaction to fire | Euro Class 'A1' |

Environmental

When tested to CDPH/EHLB Standard Method Version 1.2, Siderise RV demonstrated performance in the lowest concentration levels of VOCs for two reference scenarios. Further detail available in Certificate No 190226-01.

- Zero Ozone Depleting Potential
- Zero Global Warming Potential
- Recyclable

Additional information

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

- NBS Specification Clause
- Safety Data Sheet
- Installation instructions
- Installation Videos
- Standard Details
- Third Party Certification

Products available

The following Siderise products are available.

Siderise RH 'Open State' horizontal cavity barriers – RH50 and RH25

Siderise RV vertical cavity barriers

Siderise 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

Specification support

Siderise offer specifiers support from initial enquiry and technical consultation to project realisation. NBS draft specifications are provided for standard products and applications and can be tailored to suit specific project performance requirements.

Technical & Sales support

Sales support

Sales Team

T: +44 (0) 1656 730833

E: salesteam@siderise.com

Technical support

Technical Services Team

T: +44 (0) 1656 730833

E: technical.services@siderise.com

Site Services support

Siderise offer a range of services to contractors and installers. These include toolbox product installation and site installation inspection and reporting (subject to availability and by agreement).

Site Services Team

T: +44 (0) 1656 730833

E: site.services@siderise.com

System testing support

Siderise can provide assistance and advice for large scale system testing to BS EN, NFPA, ASTM and AS standards.

Testing Support Team

T: +44 (0) 1656 730833

E: firetesting@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.



Siderise Insulation

Passive fire solutions for the building envelope

United Kingdom (Global Headquarters)

Siderise Group Ltd, Forge Industrial Estate,
Maesteg, Bridgend CF34 0AH, UK
T: +44 (0) 1656 730833
F: +44 (0) 1656 812509
E: enquiries@siderise.com

Middle East (Branch Office)

Siderise Middle East Fz LLC, Office 132,
Al Shafar Investment Building,
Al Quoz Industrial Area 1, Dubai, UAE
T: +971 (0) 4 250 9643
E: sideriseme@siderise.com

Siderise India Pvt. Ltd (Branch Office)

Apeeiy Business Centre, Cabin 001 Ground Floor
Apeejay Express, Plot 87 Sector 17, Navi Mumbai
Maharashtra 400703, India
T: +91 998 700 4611
E: siderisein@siderise.com

Siderise (Asia Pacific) Pte. Ltd (Branch Office)

9 Raffles Place, 26-01 Republic Plaza
Singapore 048619
T: +65 963 19310
E: sideriseap@siderise.com

Siderise Special Products

Engineered acoustic solutions for equipment
manufacture and construction

Siderise (Special Products) Ltd

Lady Lane Industrial Estate
Hadleigh, Suffolk, IP7 6BQ
T: +44 (0) 1473 827695

www.siderise.com



Disclaimer: The information in this product brochure 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 brochure. Expert advice should be sought where there is any doubt about the correct specification or installation of Siderise products.