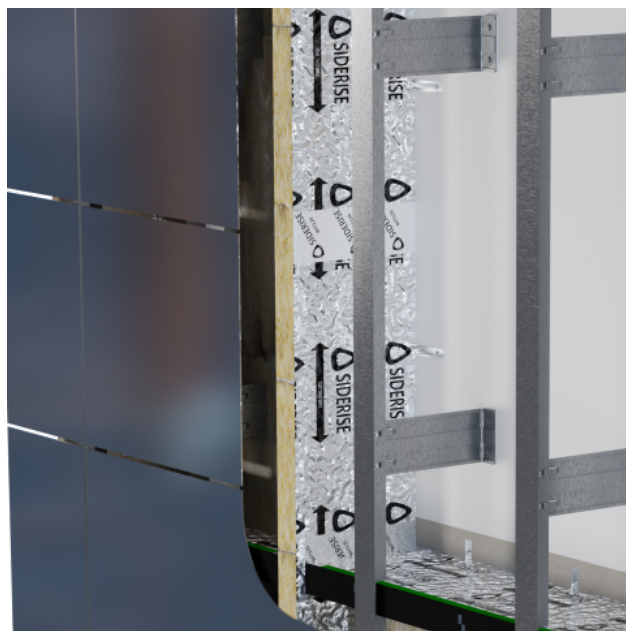


Siderise RV Vertical Cavity Barrier

Full fill cavity barrier for horizontal compartmentation in all types of rainscreen façades



Application

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

The construction offers 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.

Significantly, their unique 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, with RFT 120/45 foil tape applied as detailed in the RV Installation Instructions. The leading edge compresses directly against the external envelope. No intumescent strip is required.

Product Description

Siderise RV vertical cavity barriers for rainscreen cladding applications consist of a non-combustible stone wool lamella core, with reinforced aluminium foil faces.

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

The standard product length is 1200mm.

Fire Performance

Reaction to fire

This is the response of a material in contributing by its own decomposition to a fire to which it is exposed under specified conditions. Results are classified to EN 13501-1.

Siderise RV vertical cavity barriers have reaction to fire Third-party certification with Intertek and are classified as A1 to EN 13501-1:2018. Please see Table 1 for further information.

Table 1 : Reaction to Fire Performance

Properties	Value
Classification	A1 to EN 13501-1
Certificate No.	WHI-09/02-22-000001-03 (UK) WHI20-32944302 (US)
Thickness Range	50-175mm*
Substrates	Mechanically fixed to gypsum or any other A1 or A2-s1, d0 substrate
Joints	With or without joints

**Please note that the thickness declared here refers to reaction to fire testing (supported by certificates - WHI-09/02-22-000001-03 (UK) & WHI20-32944302 (US)) carried out on the base material from which RV is manufactured and so covers a wider range than the thicknesses used for RV resistance to fire testing shown in Table 2.*

Resistance to Fire

This is the ability of an element of structure or product to maintain its stability for a specific period as determined by the loadbearing capacity (for structural elements only), integrity and / or insulation against heat transfer specified in the fire resistance test. Results are given in accordance with EN 13501-2

Siderise RV vertical cavity barriers have been tested for resistance to fire in accordance with EN 1366-4: 2006+A1: 2010. The cavity barriers maintained integrity (E) and insulation (I) requirements as detailed in Table 2.

The tests have been undertaken to assess the ability of the vertical-cavity barrier products 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.

Third-party Certification

For full details of Siderise RV certified products, including the testing and scope of our Third-party certification, please refer to Certifire Certificate Number [CF 6028](#) and [IFC Certification IFCC 1712](#). Please see Table 2 for more information.

'Certifire certification and any product label is only applicable to the specific scope and field of application as defined within the current and valid Certifire certificate number CF 6028. Any additional details, amendments or additions to the product, or any use outside the scope or field of application, outside of that stated within Certifire number CF 6028 has not been reviewed or approved by Warringtonfire.'

The Certificates are available for download from our online Technical Resources or by contacting our Technical Support department: technical.services@siderise.com

Table 2: Resistance to Fire Performance

Product Ref	Void Width (mm)	Thickness (mm)	Compression (min.)	Integrity (Mins)	Insulation (mins)	Product Length (mm)	Third-party Certification
RV-90/30	20 - 50	75	+10%	90	30	1200	CF 6028 & IFCC 1712
RV-90/30	51 - 450	75	+10mm	90	30	1200	CF 6028 & IFCC 1712
RV-90/60	20 - 50	90	+10%	90	60	1200	CF 6028 & IFCC 1712
RV-90/60	51 - 450	90	+10mm	90	60	1200	CF 6028 & IFCC 1712
RV-120/120	20 - 50	120	+10%	120	120	1200	CF 6028 & IFCC 1712
RV-120/120	51 - 450	120	+10mm	120	120	1200	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.

Whilst the RV range has been tested in general accordance with EN 1366-4 in narrow void widths 20-50mm without mechanical fixings and brackets, we note that some supervising authorities may require a form of mechanical fixing. We recommend engaging with the project supervising authorities prior to installation to ensure all their requirements are met.

Table 3: Support Brackets

Product Type	Void (mm) 20-50	Void (mm) 51-150	Void (mm) 151-240	Void (mm) 241-300	Void (mm) 301-450
RV-90/30	None.	B65/110	B195	B355	B355
RV-90/60	None.	B65/110	B195	B355	B355
RV-120/120	None.	B65/110	B195	B355	B355

Support Brackets

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 and installation video available on our website.

Please note:

For voids up to 50mm: (measured cavity) +10% compression is required.

For voids greater than 50mm: (measured cavity) + 10mm compression is required.

Siderise RH horizontal cavity barriers are installed so that they terminate each side of the Siderise RV vertical cavity barriers.

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 extended application of results from BS 8414 tests are subsequently defined in BS 9414.

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

Thermal Performance

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

Technical Specification

Table 4: Product Properties

Properties	Value
Form Supplied	Sheets: 1200mm x 1200mm (UK and EU); 1200mm x 1150mm (RoW) Pre-cut strips: 1200mm long and supplied in width to suit advised void size.
Product Finish	Aluminium foil to surfaces exposed to cavity
Product Colour	Solid, green-brown exposed edges with silver aluminium top and bottom facings
Density	Nominal 75 kg/m ³
Thermal Conductivity	$\lambda = 0.038 \text{ W/m.K}$ (tested 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
Reaction to Fire	Class 'A1' to EN 13501-1 see Table 1
Resistance to Fire	For product fire performance see Table 2

Environmental

Recyclability

The stone wool core is recyclable.

Third-party verified EPD

Siderise RV Vertical Cavity Barrier have an Environmental Product Declaration (HUB-1302) in accordance with EN 15804+A2 & ISO 14025 / ISO 21930. Please see [EPD](#) in Product Resources or [EPD Hub](#) for further information.

60 Year Design Life

To confirm long-term durability, RV Cavity Barriers have been put through EOTA TR 024 'Type X' accelerated age testing. This is the harshest category which replicates exposure to rain, UV, high temperatures, and frost and thaw cycles.

When correctly installed in recommended applications, RV Cavity Barriers have an expected service lifespan of 60 years.

Additional Information Available

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

- Third-party Certification
- Environmental Product Declaration
- Material Data Sheet
- Installation Instructions
- Installation Video
- Standard Details
- NBS Specification Clauses

Technical Support

Technical Services Team: technical.services@siderise.com

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

For technical advice or support in the Middle East, India or Asia Pacific contact: 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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