

Siderise CW-SI Spandrel Insulation

High-density stone wool lamella spandrel insulation for non-fire rated curtain wall systems outside of the UK and Europe



Application

Siderise CW-SI Curtain Wall Spandrel Insulation forms part of the Siderise CW Perimeter Barrier System for use in non-fire rated curtain wall façade systems outside of the UK and Europe.

It is specifically engineered for use with [Siderise CW-FS Firestop](#) and, where required, [Siderise CW-FB Fireboard](#) to provide increased fire resistance performance within the spandrel zone while delivering the required thermal performance.

Siderise CW Perimeter Barrier Systems, incorporating CW-SI Spandrel Insulation, provides the following benefits:

- Certified designs that extend the fire rating of the compartment floor to the interior of the external wall.
- Mullion protection.
- Third-party certified by Intertek, ICC, UL Solutions, and Thomas Bell-Wright International Consultants.
- Tested to ASTM E2307 and ASTM E2874.
- Tested in systems with voids up to 7.87 inches [200mm] and spandrel heights from 33.46 inches [850mm] up to 59.06 inches [1500mm].
- Complies with the requirements of ASTM C612.

Product Description

Siderise CW-SI Curtain Wall Spandrel Insulation is a high-density, semi-rigid stone wool slab specifically engineered for insulating spandrel panels in curtain wall façade systems and providing an interface with CW-FS Firestop as part of the CW Perimeter Barrier System.

It uses a mechanical stud-welded pin fixing method to facilitate a secure installation within the curtain wall system.

It is available in a standard slab size of 78.74 x 47.24 inches [2000 x 1200mm], which is of benefit when the size of the spandrel panel is unknown or where it varies significantly. Slabs pre-cut to custom sizes can also be made to order.

Fire Performance

Siderise CW-SI, CW-FS, and CW-FB have been tested to both ASTM E2307 and ASTM E2874 and are certified with ICC-ES, Intertek and UL solutions.

The following tables detail the fire resistance ratings of the Siderise spandrel-protected curtain walling system, which incorporates CW-SI for spandrel insulation, CW-FB as a mullion cover, and CW-FS as a perimeter barrier firestop, when tested to ASTM E2307 and ASTM E2874.

Table 1: Resistance to Fire (ASTM E2307)

Product Ref	Void Size inches [mm]	Spandrel Height-min inches [mm]	F-Rating (mins)	T-Rating (mins)
CW-SI50	5.91 [150]	33.46 [850]	120	45
CW-SI75	3.94 [100]	38.03 [966]	202	163
CW-SI75	7.87 [200]	59.06 [1500]	153	83

Table 2: Resistance to Fire (ASTM E2874)

Product Ref	Spandrel Height-min inches [mm]	F-Rating (mins)	T-Rating (mins)	I-Rating (mins)
CW-SI75	59.06 [1500]	153	83	83

Please note:

The Fire performance ratings achieved in the tables above are related to specific tested system configurations. The CW-SI product does not carry a stand-alone fire rating.

Thermal Performance

Thermal Conductivity: $\lambda = 0.034 \text{ W/m.K}$ as per ASTM C518

Table 3: Thermal Properties

Product Ref	Thickness inches [mm]	R-value (m ² .K/W)	U-Value (m ² .K/W)
CW-SI50	1.97 [50]	1.471	0.6800
CW-SI75	2.95 [75]	2.205	0.4535
CW-SI100	3.94 [100]	2.941	0.3400

R-Value: Thermal Resistance, U-Value: Thermal Transmittance. *Please note that the above table is based on calculated values.*

Technical Specification

Table 4: Product Properties

Properties	Value
Form supplied	Sheets: 78.74 x 47.24 inches [2000mm x 1200mm] Pre-cut: to suit spandrel (max. 78.74 x 47.24 inches [2000mm x 1200mm])
Thickness*	Nominal 2" (1.97 inches [50mm]), 3" (2.95 inches [75mm]) & 4" (3.94 inches [100mm])
Color**	Silver, supplied with Class '0' Aluminium foil to one face & Siderise branding. Yellowish brown to the other face, supplied unfaced.
Density	Nominal 8pcf (7.99lb/ft ³ [128kg/m ³])
Fungi Resistance	When tested to ASTM C1338-19 no fungal growth was observed after 28 days
Water Vapor Sorption	1 (Weight %) as per ASTM C1104
Reaction to Fire	Class A1 as per EN 13501-1 (WHI24-32944303)
Resistance to Fire	The following table details the fire resistance rating of Siderise system, which incorporates Siderise CW-SI, Siderise CW-FB and Siderise CW-FS, when tested to ASTM E2307 and ASTM E2874 for Siderise CW-SI75. Please see Table 1 & 2.

Please note:

*Custom sizes can be supplied on request. Please contact the sales advisor for more information.

**The spandrel insulation can be supplied unfaced (without the aluminum foil facing). Please contact the sales advisor for more information.

Environmental

- The stone wool core is recyclable.

Additional Information Available

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

- Third-Party Certification
- Material Data Sheet

- Standard Details
- Installation instructions

Technical Support

Siderise can assist you with preliminary U-Value calculations of the spandrel area for varied project cases. We would require information on the components used in the spandrel. Siderise technical team can assist with installation training and correct application of the product.

For technical advice or support please contact: smetech@siderise.com (MEIAP), natech@siderise.com (North America)

For Installation Training or Site Inspections please contact: smetech@siderise.com (MEIAP), natech@siderise.com (North America)

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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