Siderise TW Cavity Barrier and Firestop for Tops of Walls



Cavity barriers and Firestops designed to ensure compartmentation at the tops of compartment walls

Application

Siderise firestops for tops of walls provide a seal between the top of the compartment wall, partition, or fire-resistant suspended ceiling, and the structural soffit. The choice of material is determined by the performance requirement in terms of fire resistance (i.e. insulation and integrity) and size of the cavity.

Uses include:

- Fire-stopping voids above compartment walls and partitions up to 600mm dependent on fire performance
- As an acoustic barrier at tops of walls

Product Description

Siderise firestops for tops of walls comprise a single, close dimensioned product with a unique pre-compressed internal stone wool mineral fibre lamella core. The materials are manufactured using a unique manufacturing process to provide a resilient compression which ensures a tight fit. They are either supplied as pre-cut units to suit a quoted cavity size or in sheet form for cutting on site.

The range of **Siderise firestops for tops of walls** includes various types of products which are referenced 'TW' to designate the 'Tops of Walls' application. The materials have been developed and tested at various thicknesses to meet the fire and acoustic performance requirements listed in Tables 2 and 3, respectively.

Where TW spans from the top of a wall to a profiled deck the product can be profiled to follow the contours of the metal deck, ensuring a continuous and effective seal across varying geometries. This can be done onsite or provided by Siderise as a precut.

Where there is no gap between the top of the wall and the underside of a profiled deck, please refer to the TW-P product, which can be used to infill the discreet voids within the profile.

Fire Performance

Siderise TW has been Third-Party tested and classified as A1 to EN 13501-1. Please see Table 1 for further information.

Table 1: Reaction to Fire Performance

Properties	Value
Classification	A1 to BS EN 13501-1: 2018
Certificate No.	WHI-09/02-2500001-05 (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 TW is manufactured and so covers a wider range than the thicknesses used for TW resistance to fire testing shown in Table 2.*

The design and manufacture of Siderise TW is based on fire resistance testing in general accordance EN 1366-4:2006 + A1:2010.

Table 2 -Fire Resistance to EN 1366-4

Product Ref	Void Width (mm)	Thickness (mm)	Compression (min.)	Integrity (Mins)	Insulation (mins)	Product Length (mm)	Bracket Requirement
TW-CB30	20 - 50	75	+10%	60	30	1200	No brackets**
	51 - 150	75	+10mm	60	30	1200	2no.B65/110 600mm centres
	151 - 240	75	+10mm	60	30	1200	2no.B195 600mm centres
	241 - 300	75	+10mm	60	30	1200	2no.B355 600mm centres
TW-CB30X	301 - 400	90	+10mm	60	30	1200	2no.B355 600mm centres
TW-FS60	20 - 50	90	+10%	90	60	1200	No brackets**
	51 - 150	90	+10mm	90	60	1200	2no.B65/110 600mm centres
	151 - 240	90	+10mm	90	60	1200	2no.B195 600mm centres
	241 - 300	90	+10mm	90	60	1200	2no.B355 600mm centres

TW-FS60X	301 - 600	120	+20mm	90	60	1200	2no.B355 600mm centres
TW-FS120	20 - 50	120	+10%	120	120	1200	No brackets**
	51 - 150	120	+10mm	120	120	1200	2no.B65/110 600mm centres
	151 - 240	120	+10mm	120	120	1200	2no.B195 600mm centres
	241 - 300	120	+10mm	120	120	1200	2no.B355 600mm centres

** Whilst some void widths of TW have been tested in general accordance with EN 1366-4 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.

- Brackets must be installed at 600mm centres based on a 1200mm strip,
  This can be reduced pro rata for shorter lengths. Please note that a minimum of 2 brackets are required for any length of barrier greater than 250mm. For lengths ≤250mm a single bracket must be utilised.
- All brackets to be suitably fixed to substrate with non-combustible fixings
- All brackets to penetrate product at mid-thickness.
- All brackets to penetrate to a depth of 75% of gap width.

Acoustic Performance

Siderise firestops for tops of walls can help to reduce room-to-room sound transmission. The installation of the products above a partition will contribute to room-to-room sound insulation performance. The achievable performance will depend on the construction of the wall and ceiling. Please contact our Technical Services department for further guidance around using this product.

Table 3 confirms the laboratory tested values for Weighted Sound Reduction Index (dB Rw) in accordance BS EN ISO 10140-2:2021; Acoustics-Laboratory measurement of sound insulation of building elements, Part 2: Measurement of airborne sound insulation.

Table 3 - Acoustic Performance (Weighted Sound Reduction Index)

Product Type	Thickness (mm)	Rw (dB)	C:Ctr
TW-CB30	75	21	(-1;-2)
TW-CB30X	90	21	(-1;-2)
TW-FS60	90	21	(-1;-2)
TW-FS60X	120	23	(-1;-3)
TW-FS120	120	23	(-1;-3)

Rw is the weighted sound reduction index. It is a laboratory measured value to identify the airborne sound insulation performance of a building element. It is used for internal or external walls, ceilings/floors, windows, doors, or any separating element. The higher the Rw value, the better that element performs in reducing sound transmission.

Please note that the values presented in the above table refer to the standalone performance of the Siderise products only.

Thermal Performance

Thermal conductivity : λ = 0.038 W/m.K (tested foil to foil)

Technical Specification

Siderise TW Firestops for Tops of Walls

Table 4: Product properties

Properties	Value
Form supplied	Sheets 1200mm x 1200m x thickness, Cut strips 1200mm x cavity + compression x thickness, See Table 1
Colour	Silver, with coloured identification tape centrally located on product
Finish	Aluminium foil
Density	Nominal 75 kg/m^3
Thermal conductivity	λ= 0.038 W/m.K (tested foil to foil)
Cavities	20mm to 600mm
Reaction to Fire	Class 'A1' to EN 13501-1. Please see Table 1.
Resistance to Fire	30 to 120 minutes (integrity/insulation). Please see Table 2.

Environmental

The stone wool core is recyclable

Additional Information Available

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

- Material Data Sheet
- NBS Specification Clause

Technical Support

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