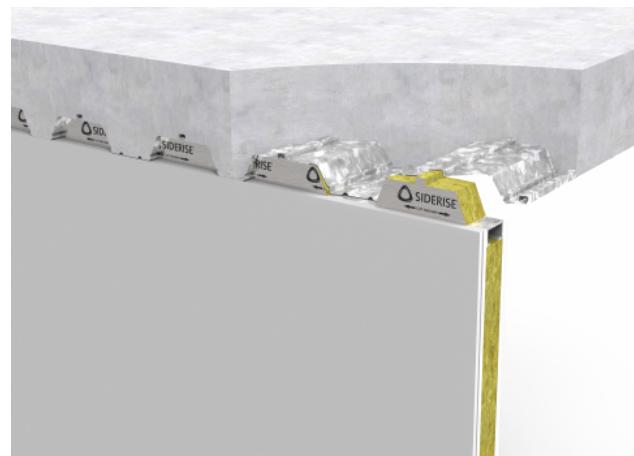


Siderise TW-P Firestop for Profiled Decks

Bespoke fire stopping solutions to seal the gaps under profiled metal decks or cladding



Application

Siderise TW-P fire stops for profiled decks comprise of a range of fire stopping solutions designed to seal the junction between the tops of compartment walls and the underside of profiled decking.

These bespoke products are made up of materials that are supplied in various configurations to cost-effectively suit the project requirement. In every case, the materials are tailor-made to suit the shape and performance specification of the individual application.

Product Description

Siderise TW-P comprises a specifically manufactured low resin content mineral fibre insulation core which is pre-compressed internally and shaped to close dimensions. The material is held in a robust lamella form by the application of reinforced foil to the exposed surfaces to give a Class A1 product.

The fire stops are factory produced trapezoidal blocks to suit specific decking profiles. The product provides a simple fire resistant seal to close cavities at the top of compartment walls in conjunction with profiled metal decking, coffered soffits and roofing etc. They are suitable for installation in a cavity of fixed dimensions.

Siderise TW-P is available in set thicknesses corresponding to the required fire resistance performance. The major and minor dimensions are matched to the quoted internal dimensions of the profile. The material is cut to be nominally oversized in height relative to the height of the profile so as to ensure a tight compressive fit within the void. Where table 1 notes a requirement for compression, this will also be considered at the manufacturing stage.

The trapezoidal Siderise TW-P blocks are available to suit the most popular metal deck profiles. A CAD file of the metal profile should be provided so that Siderise can investigate the feasibility of manufacturing the trapezoidal block before processing any quote or order request.

TW-P is ideal for addressing voids within profiled decks, where a gap exists between the profiled deck and the top of a wall, please refer to our TW product. The TW product can be cut onsite to fit the deck profile or supplied pre-cut to match the contours of the metal deck, ensuring a continuous and effective seal across varying geometries.

Please contact our technical team on technical.services@siderise.com for specific advice on product selection for your specific project requirements.

Fire Performance

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

Table 1: Reaction to Fire Performance

Properties	Value
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 TW-P is manufactured and so covers a wider range than the thicknesses used for TW-P resistance to fire testing shown in Table 2.

The design and manufacture of Siderise TW-P is based on fire resistance testing in general accordance EN 1366-4:2006 + A1:2010. Fire resistance in Table 2 applies to the sealing of gaps over walls constructed of autoclaved aerated concrete, concrete, blockwork and masonry which have a minimum density of 760kg/m³.

Table 2 – Fire Resistance

Product Ref	Void Height (mm)	Thickness (mm)	Compression (min.)	Integrity (Mins)	Insulation (mins)	Bracket Requirement
TWP-CB30	20 - 50	75	+10%	120	30	None.
	51 - 150	75	Friction	90	30	B65/110
	151 - 250	75	Friction	90	30	B195
	251 - 350	75	Friction	90	30	B355
TWP-FS60	20 - 50	90	+10%	90	60	None.
	51 - 200	90	+5mm	60	60	None.
	201 - 300	90	+10mm	90	60	B195
TWP-FS120	20 - 50	120	Friction	120	120	None.
	51 - 150	120	Friction	120	120	B65/110
	151 - 250	120	Friction	120	120	B195
	251 - 350	120	Friction	120	120	B355

Please note:

- 1 bracket required for profile widths up to 250mm. 2 brackets required for profile widths more than 250mm. Speak to technical services for further information on bracket arrangements.

Acoustic Performance

The TW-P range of barriers and firestops are also acoustically absorptive. Furthermore, the foil facings and the additional sealing of joints with Siderise foil tape all serve to provide improved airtightness. Table 2 confirms the laboratory tested values for Weighted Sound Reduction Index (dB R_w) in accordance with BS EN ISO 10140-2:2021; Acoustics-Laboratory measurement of sound insulation of building elements, Part 2: Measurement of airborne sound insulation.

Table 3: TW-P Acoustic Performance - Weighted Sound Reduction Index

Product Type	Thickness (mm)	R_w (dB)	C:Ctr
TWP-CB30	75	21	(-1;-2)
TWP-FS60	90	21	(-1;-2)
TWP-FS120	120	23	(-1;-3)

R_w is a laboratory-measured value that indicates the airborne sound insulation performance of a building element. It applies to internal or external walls, ceilings/floors, windows, doors, or any other separating element. The higher the R_w value, the better the 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.

Technical Specification

Table 4: Product Properties

Properties	Value
Form supplied	Stone wool foil faced both sides 75mm up to 120mm thick pre cut to required trapezoidal profile
Colour	Silver foil facers and green/yellow fibre
Finish	Aluminium foil
To suit profiles	Popular metal deck profiles subject to review
Density	Nominal 75 kg/m ³
Thermal conductivity	$\lambda = 0.038 \text{ W/m.K}$ (tested foil to foil)
Reaction to Fire	Class A1 to EN 13501-1; Please see Table 1
Resistance to Fire	30 to 120 minutes, Please see Table 2

Environmental

The stonewool 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 classification reports - 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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