



SIDERISE TW fire stops for profiled decks

Semi-rigid mineral wool insulation designed for use in small/irregular shaped cavities in ceiling voids, to prevent the spread of fire and smoke, and reduce sound transmission between rooms.

Application

SIDERISE TW fire stops for profiled decks comprise 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.



Benefits

- Acoustic performance (R_w): 16 - 20dB
- Upgradeable up to R_w 51dB
- D_{ncw} up to 35dB
- Fire performance: 30 - 300 minutes

Product description

SIDERISE TW-PP fire stops are factory produced trapezoidal blocks which are shaped to close tolerances directly from a base mineral wool slab. The product provides a simple fire rated 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 any nominated cavity of fixed dimensions.

SIDERISE TW-PP is available in set widths corresponding to the required fire rating. The major and minor dimensions are matched to the quoted internal dimensions of the profile.

The material is cut to be nominally oversized in depth relative to the depth of the profile so as to ensure a tight compressive fit within the void.

Should a smoke seal be required then the TW-PP must be coated with **SIDERISE fire & acoustic gap sealant** (or **SIDERISE TW-PS** should be used).

The **SIDERISE TW Fillet Blocks** comprise small section rectangular blocks of semi-rigid mineral fibre for a compressed installation within quoted metal decks.

They are typically used to complement trapezoidal blocks as a double layer method of fire stopping hollow or dovetail deck profiles.

The trapezoidal **SIDERISE TW-PP** blocks are available to suit all metal decks and profiled cladding. Through a close working relationship with profile deck manufacturers SIDERISE has built up an extensive database of profile types, facilitating specification and ordering. The profile reference or name of the deck can therefore be supplied at the point of enquiry to ensure the best solution for the project is selected.

A Class A1 rated foil-faced version of the product is also available, referred to as **SIDERISE TW-PS**. This product 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.

Contact our Interiors technical team for specific advice on product selection for your specific project requirements,



Fig 1. SIDERISE TW-PP

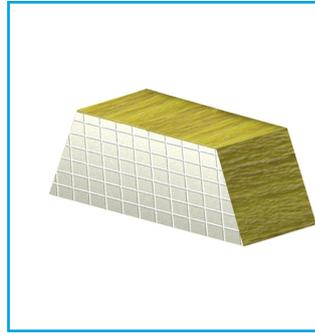


Fig 2. SIDERISE TW-PS

Fire performance

The design and manufacture of **SIDERISE TW** is based on proven fire performance to BS 476 : Part 20 : 1987.

SIDERISE TW-PP includes both 1 and 2 hours fire resistance in accordance with both insulation and integrity criteria.

SIDERISE TW-PS includes fire resistance from 1 to 5 hours in accordance with both insulation and integrity criteria.

The fire resistance in Table 1 applies to the sealing of gaps over walls constructed of lightweight aggregate concrete, dense aggregate concrete, concrete blocks or clay bricks which have a minimum density of 400kg/m³.

Verification of fire performance is available upon request.

Non-standard widths are also available subject to enquiry on a project basis. Contact our Interiors technical team for advice.

Table 1 - Fire performance

System	Product code	Fire rating (mins)	Block thickness (mm)
TW-PP	PP-FS60	60	75
	PP-FS120	120	150
TW-PS*	PS-CB30	30	75
	PS-FS60	60	90
	PS-FS120	120	120
	PS-FS300	300	175

NOTE: * Certification for the parent TW product can be found in Certifire CF563.

Installation

SIDERISE TW-PP fire stops are simply push-fitted within the profile gap to provide a tight and accurate compressive seal.

SIDERISE TW-PS is installed with the unfaced mineral fibre in contact with the sides of the construction i.e. the foil facing smoke barrier remains visible (see Fig 4).

Similarly **SIDERISE TW** range products are simply squeezed into the quoted 'rib' or 'dovetail' section. The standard range of fire, smoke and acoustic seals for tops of walls are suitable for fire sealing the following applications:

- Head of masonry wall/coffered concrete soffit
- Head of masonry wall/profiled metal deck
- Profiled metal decks bearing on steel beam

Please note: Irrespective of the fire resistance designation of the fire stop material installed, the actual fire resistance achieved for this application will be limited to that attributable to the steel beam.

The inherent resilience of the range of SIDERISE fire stopping materials, together with the minimum compression allowance, will take into account most building tolerances and uneven surfaces. However, for constructions with excessive or unknown tolerances, the materials are normally supplied oversized relative to the largest void and, trimmed on site with a serrated knife. Small holes or imperfections of fit may be sealed with **SIDERISE fire & acoustic gap sealant**.

For situations where the metal deck section is not in symmetrical alignment with the wall and, therefore, its' void partly encroaches over the wall, it is necessary to seal the cavity with the use of extended fire stop strips, see above detail. **SIDERISE TW fire stop strips** are available in non-standard sizes for this application. The material must extend sufficiently so as to provide a bearing for mechanical fixing to the soffit and, thereby, maintain the integrity through the seal.

The standard range of **SIDERISE TW** materials are manufactured to order in any size to suit a maximum total cavity height of 400mm. The recommended minimum material height is 30mm.

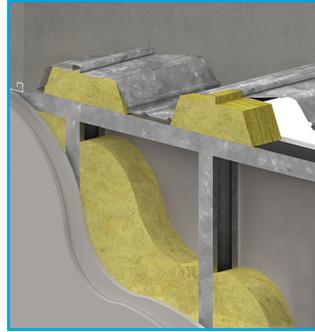


Fig 3. SIDERISE TW-PP installed

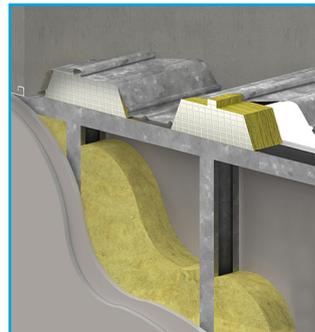


Fig 4. SIDERISE TW-PS installed

Alternatives are available for voids in excess of 400mm. If clarification is required with regard to product suitability, or if the cavity to be sealed is of a particularly irregular shape, please contact the technical sales team for assistance.

Where structural movement is expected, and/or for gaps below 30mm, SIDERISE offer a range of alternative fire rated systems for this application. The technical sales team will be pleased to advise on the most appropriate method of fire stopping on a project basis.

Technical specification

SIDERISE TW-PP fire stops for profiled decks

Form supplied	Low resin mineral fibre 50mm up to 120mm thick
Colour	Self coloured buff
Finish	Plain
To suit profiles	All
Density	Raw material 75kg/m ³
Thermal conductivity	$\lambda = 0.04$ w/mK
Fire performance	Up to EI 120mins In accordance with BS 476
Acoustic performance	Up to 44dB (Contact our Interiors technical team with project specific details for advice.)
Resistance to fire	A1

SIDERISE TW-PS fire stops for profiled decks with aluminium foil facing

Form supplied	Mineral fibre foil faced both sides 50mm up to 120mm thick
Colour	Silver
Finish	Aluminium foil
To suit profiles	All
Density	Product supplied 80kg/m ³
Thermal conductivity	$\lambda = 0.04$ w/mK at mean temperature 20°C
Fire performance	Up to EI 300 In accordance with BS 476
Acoustic performance	Up to 51dB (Contact our Interiors technical team with project specific details for advice.)
Resistance to fire	A1



Further information

PRODUCTS AVAILABLE

The following SIDERISE products for use in suspended ceiling voids are available and can also be specified using NBSPlus:

- SIDERISE TW fire stops for profiled decks
- SIDERISE FLX flexible acoustic barriers
- SIDERISE CBX flexible acoustic barriers
- SIDERISE CVB (CVB/LAM, CVB/P) acoustic void barriers
- SIDERISE SC cavity barriers and fire stops
- SIDERISE AVC acoustic void closures for tops of walls
- SIDERISE foil tape: FT 120/45
- SIDERISE fire & acoustic gap sealant

Contact us for a copy of our SIDERISE ceiling void barrier range brochure.

AVAILABLE CPDS

Contact SIDERISE for further information on our CPDs:

- SIDERISE CVB range: Use and Specification for the Suspended Ceilings Industry
- SIDERISE Acoustic Products & Performance - Information for Noise Consultants

Technical & sales support

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