Building Systems UK

A Tata Steel enterprise

Trimapanel®

Insulated secret fix micro-rib architectural wall panel system

Trimapanel® from Building Systems UK is an insulated secret fix micro-rib architectural wall panel that provides an architectural external aesthetic to your building facade.

Manufactured in factory conditions operating to quality management standard BS EN ISO 9001:2015, environmental management standard BS EN ISO 14001: 2015 and occupational health and safety management standard BS EN ISO 45001:2018.

Full traceability of all component materials and certified 'very good' to BRE's responsible sourcing standard BES 6001.

Table 1 - Range (U-value & weight)			
Overall Thickness (mm)	70	90	120
U-value (W/m²K.)	0.31	0.24	0.17
Weight (Kg/m²) *	11.89	12.67	13.85

** Weight based on standard combination of steel skin gauge*

Table 2 - Dimensional scope	
Cover width (mm)	+2
Thickness (mm)	+2
Squareness (mm)	<6
Length (mm) < 3 m	-2 +5
Length (mm) > 3 m	+10
Maximum length (mm)	12000
Minimum length on-Line (mm)	2400
Minimum length off-Line (mm)	300

Figure 1. Trimapanel® cross section

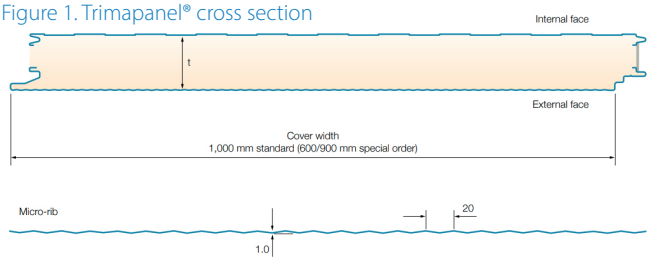


Table 3 - Flatness	
For L = 200mm	0.6
For L = 400mm	1.0
For L > 700mm	1.5

(L = length of measurement between high points)
Tolerances are in accordance with BS EN 14509

Table 4 - Accessories and finishes	
Accessories	Base Clip, Vertical Top Hat Joint, Formed Corners, Fasteners
External finishes	Colorcoat® HPS200 Ultra, Colorcoat Prisma®
Standard internal finish	Colorcoat® PE15
Available internal finishes	Colorcoat® High Reflect, Colorcoat® HPS200 Ultra, Colorcoat Prisma®, Advantica® L Control

Platinum® Plus 25 year system guarantee.

Trimapanel® and a range of system components including fixings, wall lights, sealants and fillers are available with our Platinum® Plus system guarantee providing a complete building envelope solution guarantee for 25 years.

Colorcoat® HPS200 Ultra and Colorcoat Prisma® pre-finished steel offers long-term performance with the Confidex® Guarantee and providing peace of mind for up to 40 years. **Click here to learn more**

PLATINUM® PLUS SYSTEM GUARANTEE

confidex

Our online specification generator tool has been designed to help you create the right specification to suit the needs of your project, making sure all roofing and cladding components listed are compatible and perform as a guaranteed system.

SPECGEN SPECIFICATION GENERATOR

Click here to build your specification

Product performance

Reaction to fire

- Trimapanel® panels are classified B-s2,d0 according to the European Reaction to Fire classification system (Euroclasses) BS EN 13501–1: 2018 when tested on the standard internal face of the product.

Fire resistance

- If you require fire resistance performance please specify our Trimapanel® FW system.

Third party accreditations

- LPCB (Loss Prevention Certification Board) approval to LPS 1181 Part 1.2 certified to EXT-B for all thicknesses.
- Approved to FM Class 4880, 4881 and 4471 to an unlimited wall height.
- Specification is critical for compliance. Our Technical Team can help you with your specification drafting - or you can use our SPECGEN tool.

Weatherability

- In accordance with product standard BS EN 14509, the watertightness of a system should be tested to BS EN 12865. The standard advises that the system should achieve watertightness to a pressure of 600 Pa for normal conditions. Laboratory testing evidenced that the system is water-tight up to a pressure of 1050 Pa.

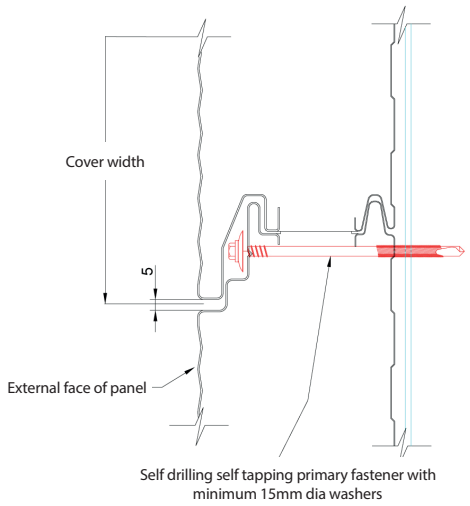
Air-tightness

- In accordance with product standard BS EN 14509, the air tightness of a system should be tested to BS EN 12114. Laboratory tests evidenced that the system has an air leakage as low as 0.48 $m^3/h/m^2$.

Span tables

The span tables below have been created in accordance with BS EN 14509. For the use of roof cladding only. The values are based on a maximum permitted deflection of span/150. Fastener performance has been taken into account within these tables based on a 2mm thick steel purlin/rail and assuming 2 fasteners per support.

Figure 2. Horizontal joint detail



Acoustic

- The sound reduction performance of the system has been predicted using software developed by Building Systems UK. The results below are based on a 120mm panel thickness.

Table 5 - Sound reduction data

Frequency (Hz)	SRI Values (dB)*	Frequency (Hz)	SRI Values (dB)*
100	12.5	800	27.7
125	14	1000	29.4
160	15.7	1250	31.1
200	17.3	1600	23.6
250	19	2000	34.8
315	20.7	2500	35.8
400	22.4	3150	34.6
500	24.1	4000	32.2
630	25.9	5000	31.7

Weighted S.R.I RW = 29.0 dB
** The predicted sound reduction index values should only be used to provide guidance for preliminary design and/or appraisal of cladding systems. For information on other thicknesses or test evidence please contact the Building Systems UK Technical Department, email: **technical.envelopeproducts@tatasteeleurope.com***

The panel is assumed to have a minimal land of 60mm at each support position. If the perimeters above do not suit the specification of your project please contact Building Systems UK Technical Department who will be happy to adjust these to suit and produce a new set of load span data. Email: **technical.envelopeproducts@tatasteeleurope.com**

Table 6 - Trimapanel® 70 span table

Load Case	Span Condition	Span (mm)										
		1500	1750	2000	2250	2500	2750	3000	3250	3500	3750	4000
Safe imposed loading (kN/m^2)	Single	5.10	4.37	3.69	3.06	2.56	2.16	1.84	1.57	1.36	1.17	1.02
	Double	4.62	3.96	3.47	3.08	2.77	2.52	2.29	2.03	1.70	1.43	1.21
	Multi	4.62	3.96	3.47	3.08	2.77	2.52	2.26	1.99	1.75	1.55	1.38
Safe wind suction loading (kN/m^2)	Single	-5.10	-4.37	-3.67	-2.90	-2.35	-1.94	-1.63	-1.39	-1.20	-1.04	-0.92
	Double	-2.81	-2.41	-2.11	-1.87	-1.69	-1.53	-1.41	-1.30	-1.20	-1.04	-0.92
	Multi	-2.81	-2.41	-2.11	-1.88	-1.69	-1.53	-1.41	-1.30	-1.20	-1.04	-0.92

Table 7 - Trimapanel® 90 span table

Load Case	Span Condition	Span (mm)										
		1500	1750	2000	2250	2500	2750	3000	3250	3500	3750	4000
Safe imposed loading (kN/m²)	Single	6.55	5.61	4.91	4.22	3.57	3.05	2.62	2.27	1.97	1.72	1.51
	Double	5.11	4.38	3.83	3.41	3.07	2.79	2.55	2.36	2.19	1.98	1.67
	Multi	5.11	4.38	3.83	3.41	3.07	2.79	2.55	2.36	2.19	2.04	1.84
Safe wind suction loading (kN/m²)	Single	-5.62	-4.82	-4.22	-3.73	-3.02	-2.50	-2.10	-1.79	-1.54	-1.34	-1.18
	Double	-2.81	-2.41	-2.11	-1.87	-1.69	-1.53	-1.41	-1.30	-1.20	-1.12	-1.05
	Multi	-2.81	-2.41	-2.11	-1.87	-1.69	-1.53	-1.41	-1.20	-1.20	-1.12	-1.05

Table 8 - Trimapanel® 120 span table

Load Case	Span Condition	Span (mm)										
		1500	1750	2000	2250	2500	2750	3000	3250	3500	3750	4000
Safe imposed loading (kN/m²)	Single	8.26	7.08	6.20	5.51	4.96	4.44	3.86	3.38	2.96	2.61	2.31
	Double	5.35	4.58	4.01	3.56	3.21	2.92	2.67	2.47	2.29	2.14	2.00
	Multi	5.35	4.58	4.01	3.56	3.21	2.92	2.67	2.47	2.29	2.14	2.00
Safe wind suction loading (kN/m²)	Single	-5.62	-4.82	-4.22	-3.75	-3.37	-3.07	-2.79	-2.38	-2.05	-1.79	-1.57
	Double	-2.81	-2.41	-2.11	-1.87	-1.69	-1.53	-1.41	-1.30	-1.20	-1.12	-1.05
	Multi	-2.81	-2.41	-2.11	-1.88	-1.69	-1.53	-1.41	-1.30	-1.20	-1.12	-1.05

Site Guidance

Guidance on delivery, offload and construction can be **found here**. These recommendations should be considered together with our typical construction details (see useful links opposite).

Packaging

The panels are stacked onto wooden pallets. The number of panels per pack will vary according to the length and depth of panel, typically panels are packed in stacks up to 1,100mm high.

Our pallets are sourced from an FSC certified supplier and are returnable for repair and recycling.

The panels are protected for transportation and storage by a baseboard and polymer shrink wrap. Local arrangements should be checked for recycling of these items.

Maximum pack size

Maximum number of panels within a pack for varying panel lengths

Table 9 - Core thickness (mm)	Panel Length (m)	No. of Panels
70	<5	13
	5 - 7	10
	7 - 9	8
	9 - 12	7
90	<5	11
	5 - 7	8
	7 - 9	6
	9 - 12	5
120	<5	6
	5 - 7	8
	7 - 9	6
	9 - 12	5

Watch our installation guides

Other useful links and downloads

- Declarations of performance
- BES 6001 Certification
- LPCB fire approval certification
- FM Approval certificate
- Vertical wall CAD drawings
- Horizontal wall CAD drawings
- Request a CPD

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