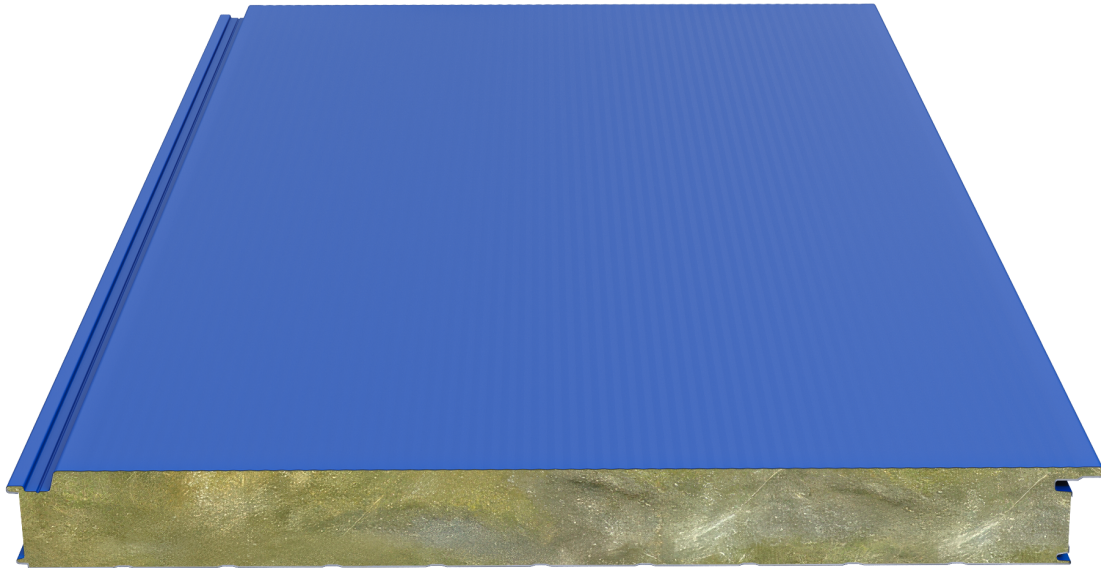


WT - UK Wall Panel



Product Description

WT wall panels are suitable for use on walls due to the system that conceals joint elements. The ability to use them both laterally and vertically provides assembly flexibility and good solutions for designers. Generally produced in micro pressed form to achieve an aesthetic appearance for walls. Mineral wool filler provides the best fire resistance performance.

Production Location

UK

Product Application

- Industrial Buildings
- Military Buildings
- Public Buildings
- Agricultural Buildings
- Sports Facilities
- Construction Site Buildings
- Silos
- Hypermarkets
- Shopping Centers
- Storehouse Halls
- Administrative Buildings

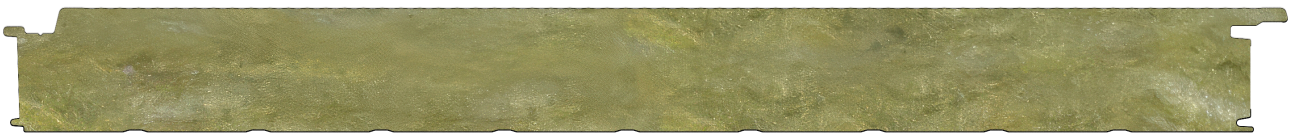
and all other concrete structures with steel or prefabricated load bearing systems.

While every effort has been made to ensure the accuracy of the information provided in this document, Assan Panel and its subsidiaries accept no responsibility for any errors or for content that may be misleading. Any recommendations or descriptions regarding product use or application are offered for general guidance only. Assan Panel and its subsidiaries accept no liability in respect thereof. Assan Panel reserves the right to make changes to this document at any time without prior notice.

Performance Advantages

- Has perfect fire resistance values.
- Fast and problem-free assembly saves time and labor.
- High performance in both thermal insulation and sound insulation.
- The colorful surface eliminates the need for additional coatings like plaster and paint.
- Color options available in the RAL catalogue.
- Surface paint options available according to application (Polyester, PvdF, Plastisol, PVC).
- Applicable both laterally and vertically.
- The fastening elements being concealed provides visual advantage on walls.
- High sound insulation performance.

Cross Section



Thickness: 40-50-60-80-100-120-140-160-180-200 mm

Modular Width	1,000 mm
Minimum Length	2 meters
Maximum Length	Depends on transport conditions.

Mineral Wool Properties

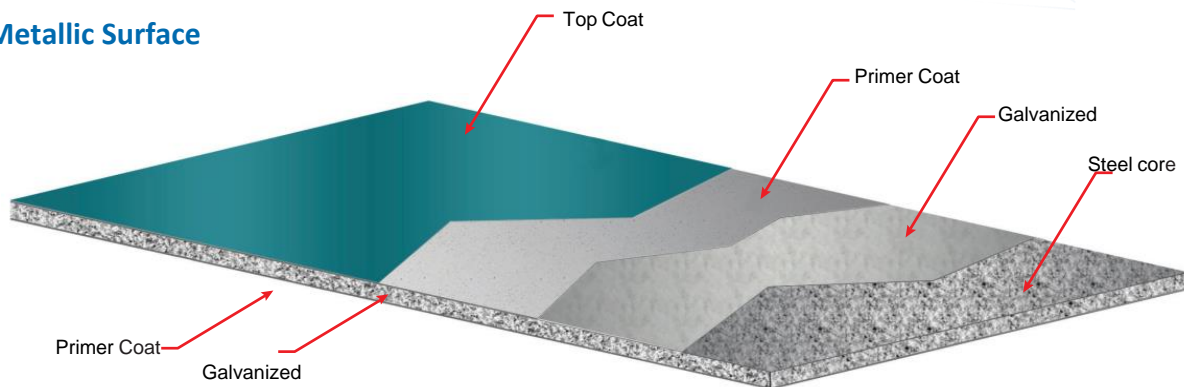
Density (EN 1602)	100 (± 2) kg/m ³ - 120 (± 2) kg/m ³ -150 (± 2) kg/m ³
Thickness	40-50-60-80-100-120-140-160-180-200 mm
Thermal Conductivity (EN 13165)	0.043 W/mK
Reaction to Fire (13501)	A2-s1,d0

Thermal Conductivity Table

Panel Thickness	U Thermal Conductivity (W/m ² K)	R Thermal Resistance (m ² K/W)	R Thermal Resistance (ft ² °F h/Btu)
40 mm	1,13	1,100	6,247
50 mm	0,93	1,330	7,568
60 mm	0,79	1,570	8,888
80 mm	0,61	2,030	11,529
100 mm	0,50	2,500	14,170
120 mm	0,42	2,960	16,811
140 mm	0,36	3,430	19,452
160 mm	0,32	3,890	22,093
180 mm	0,29	4,360	24,734
200 mm	0,26	4,820	27,375

According to EN 14509

Metallic Surface



Prepainted Galvanized Steel Surface

Metal Type	h 8 0
External Facing Thickness	50
Internal Facing Thickness	40
Thickness Tolerance (EN 10143)	V
Steel Quality (EN 10327)	S Grade (S220GD+Z, S250GD+Z, S280GD+Z, S320GD+Z, S350GD+Z)
Paint Type	h h 7 h

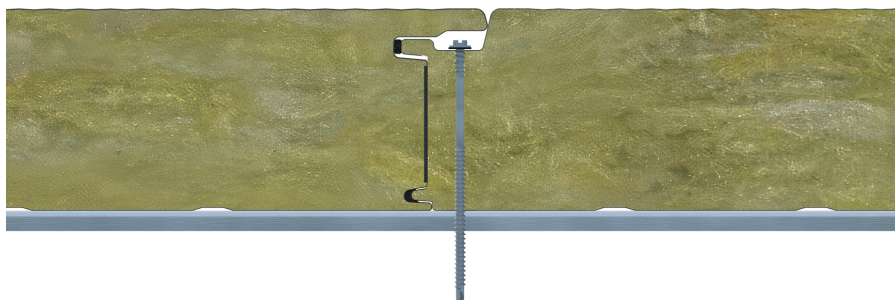
Tolerance Values

Panel Length	Panel Thickness	Panel Cover Width	Rectangularity
If L ≤ 3,000 mm ± 5 mm; If L > 3,000 mm ± 10 mm	D ≤ 100 mm ± 2 mm	± 2 mm for all profiles	s ≤ 0.6% of the nominal cover thickness (w). / (Width x 0.006)

Standard Package

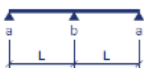
Thickness (mm)	40	50	60	80	100	120	140	160	180	200
Quantity	24	20	18	14	10	8	7	6	5	4

Joint Details



WT WALL (MW) PANEL LOAD SPAN TABLE

Core Thickness (mm)	Load Type kN/m ²	Span length (L) (m)															
		1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00
SINGLE SPAN	a (mm)	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
	Pressure (kN/m ²)	1.64	1.37	1.17	1.02	0.92	0.83	0.75	0.69	0.63	0.55	0.48	0.42	-	-	-	-
	Suction (kN/m ²)	-1.64	-1.37	-1.17	-1.02	-0.92	-0.83	-0.70	-0.58	-0.50	-0.43	-0.35	-0.21	-	-	-	-
	b (mm)	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
	a (mm)	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
	Pressure (kN/m ²)	2.07	1.72	1.47	1.29	1.15	1.03	0.95	0.87	0.80	0.70	0.61	0.53	-	-	-	-
	Suction (kN/m ²)	-2.07	-1.72	-1.48	-1.29	-1.15	-1.03	-0.98	-0.74	-0.63	-0.54	-0.47	-0.41	-	-	-	-
	b (mm)	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
	a (mm)	2.49	2.08	1.78	1.56	1.38	1.24	1.13	1.04	0.97	0.84	0.73	0.64	0.57	0.51	0.46	0.41
	Suction (kN/m ²)	-2.50	-2.08	-1.78	-1.56	-1.38	-1.24	-1.05	-0.89	-0.76	-0.65	-0.57	-0.50	-0.44	-0.39	-0.35	-0.32
	b (mm)	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
	a (mm)	2.92	2.43	2.08	1.82	1.62	1.46	1.32	1.21	1.12	0.99	0.86	0.76	0.67	0.60	0.53	0.48
Suction (kN/m ²)	-2.92	-2.43	-2.09	-1.82	-1.62	-1.46	-1.23	-1.03	-0.89	-0.76	-0.66	-0.58	-0.52	-0.46	-0.41	-0.37	
b (mm)	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	
a (mm)	3.35	2.79	2.39	2.09	1.86	1.67	1.52	1.39	1.28	1.12	0.99	0.87	0.77	0.68	0.61	0.55	
Suction (kN/m ²)	-3.35	-2.79	-2.39	-2.09	-1.86	-1.67	-1.41	-1.18	-1.01	-0.88	-0.76	-0.67	-0.59	-0.53	-0.47	-0.43	
b (mm)	45	45	45	45	45	45	45	45	45	42	40	40	40	40	40	40	
a (mm)	4.20	3.50	3.00	2.62	2.33	2.10	1.91	1.75	1.61	1.41	1.23	1.08	0.96	0.86	0.77	0.69	
Suction (kN/m ²)	-4.20	-3.50	-3.00	-2.62	-2.33	-2.10	-1.77	-1.48	-1.28	-1.09	-0.96	-0.84	-0.74	-0.66	-0.60	-0.54	
b (mm)	54	54	54	54	54	54	54	54	54	51	48	45	42	40	40	40	
a (mm)	5.06	4.21	3.61	3.16	2.81	2.52	2.29	2.10	1.94	1.70	1.48	1.30	1.15	1.02	0.90	0.84	
Suction (kN/m ²)	-5.06	-4.21	-3.61	-3.16	-2.81	-2.53	-2.13	-1.79	-1.52	-1.31	-1.14	-1.00	-0.90	-0.80	-0.72	-0.65	
b (mm)	80	80	80	80	80	80	80	80	80	72	64	57	53	50	47	45	
a (mm)	6.33	5.28	4.52	3.96	3.52	3.16	2.88	2.64	2.43	2.13	1.85	1.63	1.44	1.28	1.15	1.04	
Suction (kN/m ²)	-6.33	-5.28	-4.52	-3.96	-3.52	-3.17	-2.67	-2.24	-1.91	-1.64	-1.43	-1.26	-1.11	-1.01	-0.90	-0.81	
b (mm)	97	97	97	97	97	97	97	97	97	88	79	71	64	58	53	51	
a (mm)	7.19	5.99	5.13	4.49	3.99	3.59	3.26	2.99	2.76	2.41	2.10	1.85	1.63	1.46	1.31	1.18	
Suction (kN/m ²)	-7.19	-5.99	-5.13	-4.49	-3.99	-3.59	-3.03	-2.54	-2.17	-1.87	-1.62	-1.43	-1.26	-1.13	-1.01	-0.92	
b (mm)	269	270	270	270	270	270	269	268	197	147	111	99	84	73	64	60	



Notes:

- Steel thickness ext/int: 0,50/0,40mm
- Values have been calculated using the method described in EN 14509, for color group 3 (dark colors)
- Values have been calculated using the limit state method described in EN 14509: 2013. Taking imposed loads, temperature and creep into account.
- The following deflection limits have been used:
Pressure loading L/100
Suction loading L/100
- Design criteria Safety factors on loads: ULS 1.5 (variable) 1.35 (permanent) / SLS 1.
Safety factors on material: Wrinkling of face: ULS
1.25 / SLS 1.1. Shear of core: ULS 1.3 / SLS 1.08.
SLS Summer temperature: Outside 80°C / Inside 25°C,
Winter temperature: Outside -20°C / Inside -25°C.
- In order to conduct the calculations some data from table E6 and rates originating from table E8 stipulated in a standard EN 14509 were applied.
- The loads calculated in the load-span table are unfactored loads.
- The actual wind suction resisted by the panel is dependent on the number of fasteners.
- The fastener calculation should be carried out in accordance with the appropriate standards.
- For intermediate values linear interpolation may be used.
- The allowable steelwork tolerance between bearing planes of adjacent supports have to be aligned with EN1090-2

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