

Hemsec Clean

50mm to 200mm

Internal clean room walls and ceilings.



Rev: 0319-A
Pg: 1 / 3

Panel Data.

Cover width:

1155mm

Panel Thickness (mm)	Min. Panel Length (m)	Max. Single Span Wall Height * (m)	Max. Single Span Ceiling * (m)	Thermal Transmittance U W/M2K ***	Deflection Temp. Difference *	Weight Kg/m2 (0.5/0.5)
50	2.4	5.65	3.51	0.39	18°C	9.60
80	2.0	8.00	5.37	0.25	18°C	11.00
100	2.0	9.43	6.48	0.20	18°C	11.60
125	2.0	11.06	7.73	0.16	18°C	12.50
150	2.0	12.50	8.80	0.13	18°C	13.40
175	2.0	13.50	9.94	0.11	18°C	14.40
200	2.0	14.49	10.30	0.10	18°C	15.70

* Max. Single wall spans (horizontal and vertical) are based on a combination of stress and deflection of 0.3kN/m2 with both walls and ceilings on a temperature difference (between internal and external environments) of 18°C. For temperatures and structural loadings beyond the above stated, consult Hemsec.

For specific Fire Rated spans, please refer to the Hemsec 'Fire Rating Matrix' document.

Max. Single ceiling spans are based on 0.9kN point load at mid-span and 0.25kN/m2 UDL (Hemsec strongly recommend referring to our 'Ceiling Care' document for greater detail). Minimum bearing/support of 50mm at panel ends. Consult Hemsec for further information on permitted bearing loads and edge supports.

Panels are manufactured to bespoke lengths starting at the stated minimums above; maximum lengths stated may be increased upon referral to Hemsec up to a manufacturing capability limit of 15m**

** Hemsec should be consulted on any panel lengths greater than the maximum stated in the above table due to the difficulties faced when handling and on installation.

*** Calculated using the method required by the Building Regulations Part L2 (England & Wales) and Building Standards Part J (Scotland). Thermal transmittance based on λ mean = 0.02038 W/Mk.

Materials – Steel.

Panel Finishes *	Manufacturer	Internal Steel Face	External Steel Face	Steel Substrate **	Paint Thickness μ m (nominal)	Laminate Thickness μ m (nominal)
PET	Advantica© CL Clean by Tata Steel	✓	✓	0.5mm Z100 HDG	35	20 (55 Ovr)
Foodsafe Laminate	Various	✓	✓	0.5mm Z225 HDG	-	120
Foodsafe Polyester	Various	✓	✓	0.5mm Z225 HDG	25	-
Primer/Liner	Various	✓	✓	0.5mm Z225 HDG	7-10	-

* Other finishes available on request.

** 0.7mm steel available on request (will increase weight, enhances face flatness)

Facing Profile Options:

- Smooth
- 100 RIB

Insulation Core.

PIR Polyisocyanurate closed cell insulation HCFC free zero ODP rated core.

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Rev: 0319-A
Pg: 2 / 3

Panel Joint.

Tongue and groove joint achieves excellent vapour resistance, air tight seal, thermal and fire performance.

Air Leakage.

Panel joint air-tightness = 0.01 m³/m²/hr at 50 Pa when tested to EN 12114 in accordance with BS EN 14509: 2013.

Fire.

Reaction to fire:

Tata Advantica CL Clean steel facings have a Classification of A1.

White Foodsafe Laminate (WFSL) faced panels have a reaction to fire according to EN13501-1 of: B, s2, d0. (50mm exclusion = B, s3, d0.)

Polyester faced panels have a reaction to fire according to EN13501-1 of: B, s2, d0.

For fire specification on other panel finishes, please contact Hemsec.

Fire resistance:

LPCB LPS 1208 Cert:558a

LPS Rating FR30 for 100-150mm thicknesses with maximum unsupported span 4m (walls) & 7.5m (ceilings).

LPS Rating FR30 for 175-200mm thicknesses with maximum unsupported span 7.5m (walls & ceilings).

LPS Rating FR60 for 175-200mm thicknesses with maximum unsupported span 4m (walls) & 4.5m (ceilings).

BS EN 13501-2: 2016

125-175mm thicknesses achieve EI30 under Extended field of Application BS EN 15254-5: 2009 with maximum unsupported span 12m (walls).

200mm thickness achieves EI45 under Extended field of Application BS EN 15254-5: 2009 with maximum unsupported span 12m (walls).

Please refer to the Hemsec 'Fire Rating Matrix' document for further detail, available to download from our website.

Acoustics.

All panels have a predicted figure weighted sound reduction $R_w = 26\text{dB}$.

Quality & Durability.

Hemsec metal faced panels are manufactured from high quality materials, using state of the art production equipment to rigorous quality control standards (complying with an approved BS EN ISO 9001:2015 QMS standard) ensuring long-term durability and service life.

Guarantees & Warranties.

Dependant upon application, please contact Hemsec.

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Rev: 0319-A
Pg: 3 / 3

Packaging.

Hemsec metal faced composite insulated panels are stacked horizontally with protective jiffy foam laid between the ends of each panel; they are then wrapped in polythene and strapped on top of a 3mm hardboard sheet to prevent forklift damage and to protect against the weather. The pack is supported by a number of polystyrene bearers, (150mm x 100mm), regularly spaced under the hardboard to keep the panels elevated from the floor avoiding dirt and possible damage.

The number of panels in each pack depends on panel length and weight. Typical pack height is 1100mm.

Panel Thickness	50mm	80mm	100mm	125mm	150mm	175mm	200mm
No. panels/pack (max)	10	10	9	7	6	5	4

Maximum pack weight is 1000kg. Each pack is labeled with project information and customer panel references.

Delivery & Site Procedures.

All deliveries are made by road transport to the project site, subsequent offloading and storage is the responsibility of the customer. Please refer to the Hemsec 'Panel Care Instructions' document for further detail, available to download from our website.

Indicative drawing details are available on request from Hemsec.