



Core

Panel cores are non-combustible mineral wool such as Roxul® Firesafe Insulation with vertically orientated fibres. Mineral Wool cores are available in either 100 kg/m³ or 110 kg/m³ density. Steel skins are bonded to the core under pressure using a two-part thermosetting polyurethane adhesive. Other specialised cores are also available on request.

Skins

Sheet thickness is a standard 0.60mm for both surface skins. Panel skins are available with a choice of steel:

- Colorbond® Permagard™ steel, incorporating Microban® antibacterial technology in its coating to provide durable, food-safe performance that will not wash off. This steel is available in Permagard™ White only.
- Colorbond® standard grade steel comes in a wide range of designer colours.
- There are other skin materials available on request, including Stainless Steel and Aluminium.

Colour

The many colours available in Colorbond® range from traditional to modern. For Prestige Applications there is Colorbond® Metallic steel. Generally, the lighter colours are preferred for external use because they reflect solar radiation. The various surfaces and colour choice can influence the price per square metre - our sales staff will gladly assist you in your selection.

Dimensions

- Width: 1200mm as a modular standard.
- Thickness: 50 to 150mm in multiples of 25mm.
- Length: As required, determined by handling, design and transportation.

Profiles

See below and overleaf.

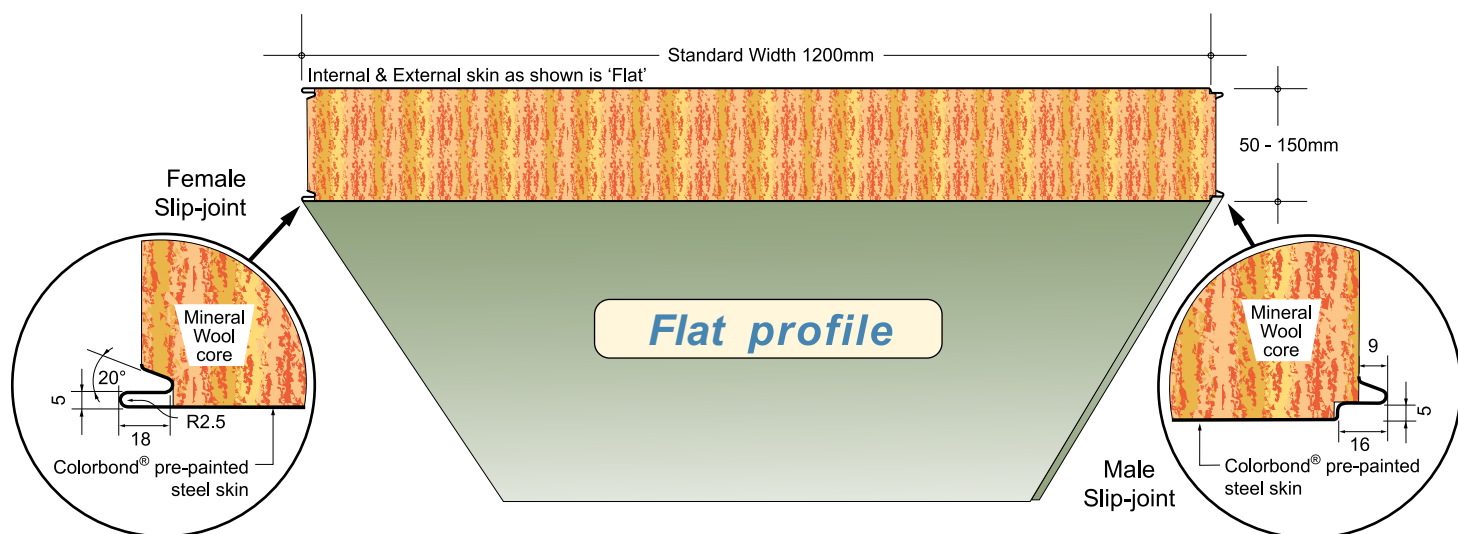
SECTION PROPERTIES

Section properties and mass for unit (1000mm) width of panel, together with the recommended maximum design skin stresses have been determined for panels of varying panel thickness and these are shown below.

0.60mm Steel Skin panels			
Thickness (mm)	Section Modulus (mm ³)	Maximum Design Skin Stress (MPa)	Weight (kg/m ²)
50	32400	36	14.93
75	48500	36	17.69
100	64700	36	20.44
125	80900	30	23.19
150	97100	30	25.94

THERMAL PERFORMANCE (Mineral wool core)

Panel Thickness (mm)	R value (m ² K/W)
50	1.2
75	1.83
100	2.44
125	3.05
150	3.66



TECHNICAL INFORMATION

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ADELAIDE (08) 8252 7188
PERTH (08) 9249 4022

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All information contained in this brochure is available in PDF format at www.australinsulation.com.au



PROPERTIES - ULTIMATE LIMIT STATE

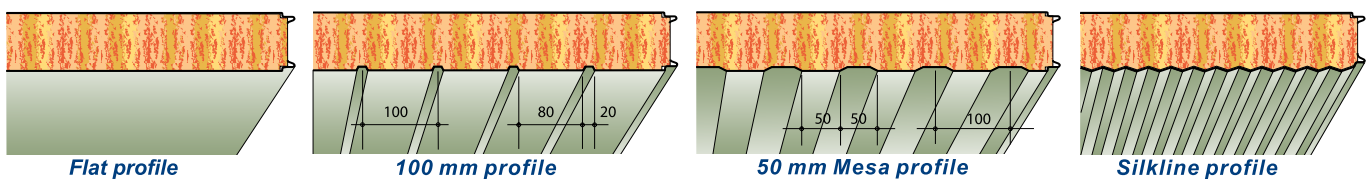
Slip-joint® male/female mating profile, 1200mm wide Wall panels, 0.60mm Base Metal thickness Colorbond®, Plain faced skin on both sides of a Mineral Wool Vertically Orientated Fibre Core with a nominal density of 110 kg/m³.

DESIGN LOAD CAPACITY									
Nominal Panel Thickness	Ultimate Limit State Uniform Design Load Capacity kN/sqm								
	Single Span - Length in metres								
	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
(mm)	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0
50	1.35	1.07	0.90	0.77	0.58	0.46	0.37	-	-
75	2.01	1.62	1.34	1.15	0.88	0.69	0.56	0.46	0.39
100	2.69	2.15	1.79	1.53	1.18	0.93	0.75	0.62	0.52
125	2.82	2.27	1.89	1.61	1.23	0.97	0.79	0.65	0.55
150	3.41	2.73	2.28	1.95	1.48	1.17	0.95	0.78	0.66

- Notes:
- 1) The tabulated design loads are factored design loads. (In the assessment of the design loads, the designer should take into account the self weight of the Econorock panel).
 - 2) Compliance with these recommendations will ensure that deflections do not exceed span/120. Where more severe deflection restrictions are required, specific testing of deflection characteristics is recommended for the various span/thickness combinations.
 - 3) A minimum design load of **0.68 kN/m²** is recommended for non trafficable areas. The design loads below the heavy shaded area fall within this category. Design loads below the lightly shaded area satisfy Serviceability Limits on deflections. Circumstances may require different design loading.
 - 4) Where panels are to be installed over more than one span, it is recommended that stress cuts be made across the inside (or cold side) steel skin adjacent to the supports to prevent buckling of the outer (warm side) skin at the support.
 - 5) Where panels are used as ceiling, Austral Insulation should be consulted for special design requirements, which may be required.

Profiles

Available with a flat surface finish or low profile of 0.75mm depth to either surface: 100mm Rib profile, 50mm Mesa Rib and Silkline. The Austral Slip-joint® is incorporated into the edges of both surface skins for easy installation.



Austral Insulation reserves the right at all times and without notice to make any changes, modifications or improvements to its technical data or products. Issued Sept. 2008

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