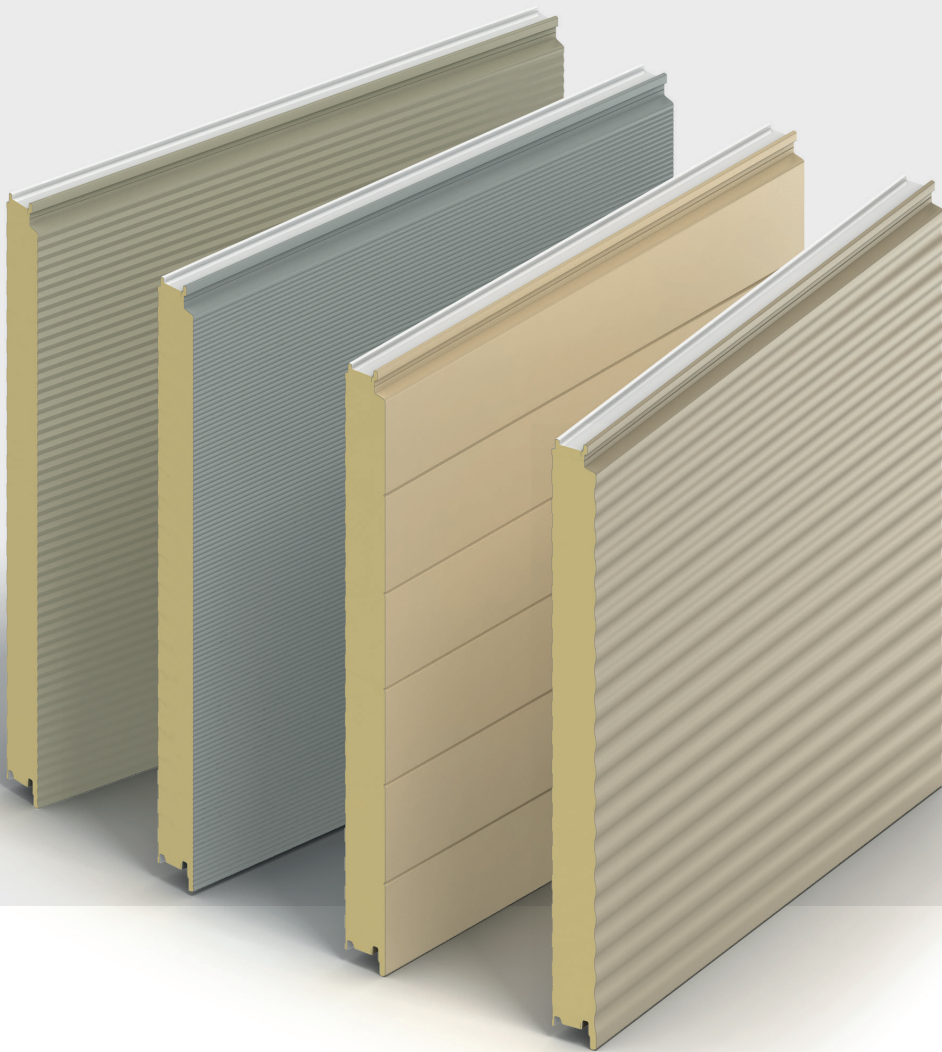


Insulated Panels
Australia

Architectural Wall Panel Product Data Sheet



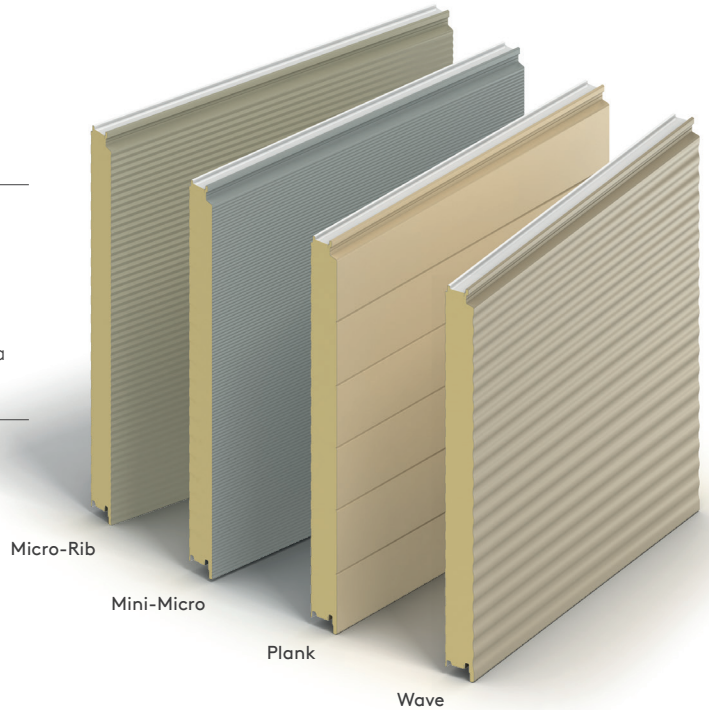
Product Data

Product Overview

Kingspan's Architectural Wall Panel is a range of secret-fix external wall panels combining aesthetic appeal with performance. Available in 4 different profile options and variety of panel widths, these versatile panels provide a weather tight building envelope solution.

Application

Architectural Wall Panels are suitable for most building applications as an external facade element in either horizontal or vertical applications.



Dimensions, Thermal Performance & Weight

Panel Nominal Thickness (mm)	Product R-Value (m ² K/W) at 23°C	Product U-Value (W/m ² K) at 23°C	Total R-Value (m ² K/W)		Weight* (kg/m ²)
			Heat Flow Out (Winter)	Heat Flow In (Summer)	
50	2.24	0.44	2.50	2.31	10.5
80	3.68	0.27	4.01	3.70	11.8
100	4.61	0.21	4.98	4.59	12.0
140	6.47	0.15	6.92	6.38	13.7

Declared Thermal Conductivity (λ Value) 0.022 W/mK @23°C.

Declared Product R-Value is calculated in accordance with AS/NZS 4859.1: 2018 as required for compliance to the National Construction Code.

The R-Values shown above are the total R-Values for the building element as required by the Energy Provisions of the National Construction Code, calculated in accordance with AS/NZS 4859.2: 2018. Architectural Wall Panels are manufactured, tested and packaged in conformance with AS/NZS 4859.1: 2018.

* Actual weight subject to vary $\pm 10\%$ due to manufacturing and raw material tolerances.

Available Lengths

Standard lengths	2.0 m - 13.7 m
Longer lengths (non-standard)	13.7 m - 16.1 m
Export of Australia / Sea freight to WA	11.8 m

Note: Additional costs and transport restrictions may apply for non-standard lengths.

Cover Widths

Architectural Wall Panels are available in a choice of standard and non-standard cover widths.

Standard cover width	1000 mm
Non-standard cover widths	900 mm

Fixing Method

Secret-fix.

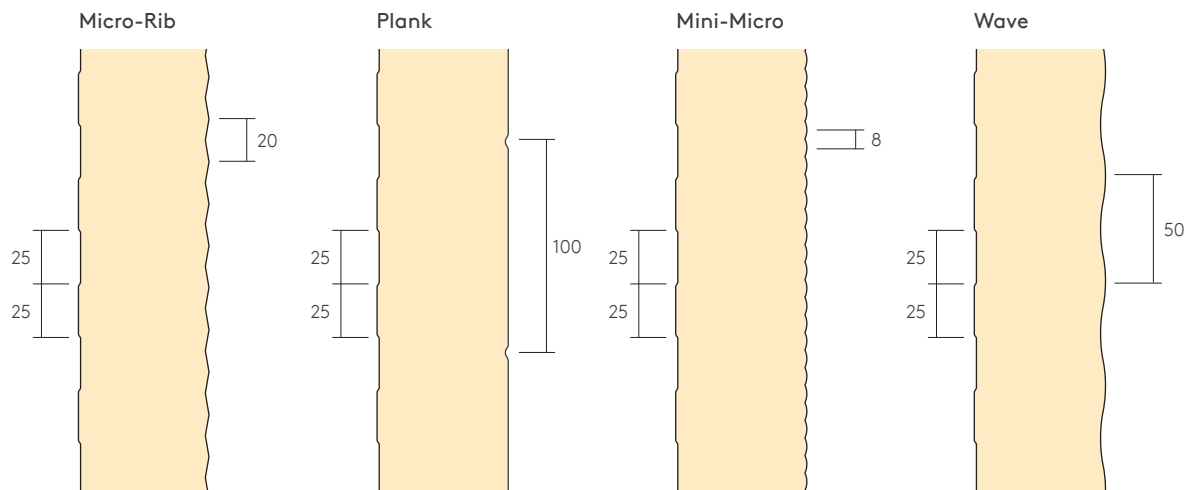
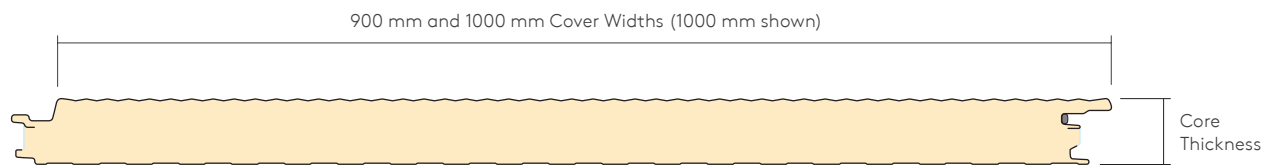
Product Tolerances

Length < 3 m	± 5 mm
Length > 3m	± 10 mm
Cover Width	± 2 mm
Thickness < 100 mm	± 2 mm
Thickness > 100 mm	$\pm 2\%$
Squareness	$\leq 0.6\%$ of width
Flatness*	
L = 200 mm	0.6 mm
L = 400 mm	1.0 mm
L > 700 mm	1.5 mm
Bowing	2 mm per metre length upto maximum 20 mm

* Flatness shall be measured at least 100 mm from the edge of panel and 200 mm from the end of panel.

Profiles

Micro-Rib



Note: Dimensions are nominal. Actual dimensions will vary due to manufacturing tolerances. Precise dimensions must always be measured from actual samples. All measurements in mm.

The table below provides clarification as to the availability of specific Architectural Wall Panel profiles depending on panel cover width.

Architectural Wall Panel Profile	Panel Cover Width (mm)	
	900	1000
Micro-Rib (MR)	✓	✓
Mini-Micro (MM)	✓	✓
Plank (PL)	–	✓
Wave (WV)	✓	✓

Insulation Core

Architectural Wall Panels are manufactured with a polyisocyanurate (PIR) core.

Structural Performance

Please contact Technical Services for project specific support on the spanning performance of the Architectural Wall Panels.

Product Data

Certification and Testing

Fire Performance

Reaction to Fire

Test	Test Method	Result
Ignitability	AS/NZS: 1530.3: 1999	Ignitability Index: 0
Flame Spread		Spread of Flame Index: 0
Heat Release		Heat Evolved Index: 0
Smoke Release		Smoke Developed Index: 3
NCC Group Number in accordance with AS 5637.1: 2015	AS 5637.1: 2015 / ISO 9705 2003	Group 2
Smoke Growth Rate Index (SMOGR _{ARC}) (m ² /S ² x 1000)		< 100

Large Scale Facade Testing

Architectural Wall Panels are tested to BS 8414-2: 2005 + A1: 2017 under the name KS1000AWP.

Tested Build-up

- 140 mm thick KS1000AWP vertically orientated wall panel
- Light weight steel frame
- No lining / no cavity barriers used

Test Report: BS 8414-2:2015 – P109234-1000.

Classification Report: JV18-00218.

Please contact Technical Services for project specific details.

Insurer Approvals

Architectural Wall Panels are tested to:

- FM 4880 Class 1 fire rating of building panels or interior finish materials, unlimited height for thicknesses 50 mm to 140 mm and panel width of 1000 mm only.
- FM 4881 Class 1 exterior wall systems, unlimited height for thicknesses 50 mm to 140 mm and panel width of 1000 mm only.

FM approvals are subject to the following certified names:

- For 1000 mm widths: KS1000AWP.

Insurer approvals are large scale testing regimes that provide objective third-party testing, which is underpinned by quarterly, half-yearly and yearly factory surveillance audits (depending on the region) to verify compliance. Insurer approvals are subject to panel thickness, width, orientation, method of assembly, steel coating and manufacturing facility. Please contact Technical Services for project specific details.



Acoustic Performance

For a sound transmission reduction, Architectural Wall Panels have a weighted sound reduction index (SRI) of R_w = 24 - 26dB*. Results are based on panels with a similar profile and core material.

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000	R _w
SRI (dB)	20	18	20	24	20	29	39	46	24

* Please contact Technical Services for project specific support and product specification where R_w = 26dB is required.

Materials

External Weather Sheet

- G300S steel with AM100 or AM150 metallic coating in accordance with AS 1397: 2021.
- Paint Coating in accordance with AS / NZS 2728: 2013.

Internal Liner

- G300S steel with AM100 metallic coating in accordance with AS 1397: 2021.
- Paint Coating in accordance with AS / NZS 2728: 2013.

Coatings

External Weather Sheet

- Colours as per the Kingspan Australia colour range, please contact your local area sales manager for further information.

Internal Liner

- Kingspan CLEANsafe 15: The coating has been developed for use as the internal lining of insulated panels. Standard colour is "bright white" with an easily cleaned surface.

Other Internal Coating Options*

- Kingspan AQUAsafe: The coating has been developed for use as the internal lining of insulated panels to suit high humidity internal environments.
- Kingspan AQUAsafe 25 and Kingspan AQUAsafe 55: The coating has been developed for use as the internal lining of insulated panels to swimming pool internal environments.

* Please contact Technical Services for further information regarding substrates and coatings. Internal coatings subject to availability and panel cover width.

Seals

All panel joints have a factory applied weather seal fitted into the panel groove to automatically seal the joint between panels.

Quality and Durability

Architectural Wall Panels are manufactured from the highest quality materials using state-of-the-art production equipment to rigorous quality control standards, complying with ISO 9001 standard, ensuring long-term reliability and service life. The panels are also being manufactured under Environmental Management System Certification ISO 14001 and Occupational Health and Safety Certification ISO 45001.

Cyclonic Applications

A significant part of the Australian coastline is deemed to be in a cyclonic region. As a result of this Kingspan have carried testing out on the Architectural Wall Panels, in accordance with the requirements of the BCA B1.2 for low-high-low performance requirements.

For further information, please contact Technical Services for project specific support and product specification of the Architectural Wall Panels in cyclonic applications.

Packaging

Architectural Wall Panels are stacked horizontally. The entire pack is shrink wrapped. The number of panels in each pack depends on panel length, weight, and thickness. Typical pack height is 1200 mm. Other types of packaging are available upon request, please contact Kingspan Customer Service team for further information.

Delivery

All deliveries (unless indicated otherwise) are by flatbed road transport to project site. Off loading is the responsibility of the client. Export orders are transported in shipping containers. WA orders are transported in shipping containers, unless road freight is opted for.

Site Installation Procedure

Site assembly instructions are available from Technical Services. Kingspan recommend that the appointed contractor attend the product installation training course prior to installation, which is provided by Kingspan Field Services.

Environmental

Kingspan Insulated Panels manufacturing facility in Australia sources 100% certified renewable electricity and procures steel that is made from 15-25% recycled content.

Architectural Wall Panels have Environmental Product Declarations in accordance with the requirements of ISO 14025 and EN 15804: 2012 + A2: 2019 for 50 mm to 140 mm thickness.

Architectural Wall Panels is certified with a Global GreenTag GreenRate™ Level A certification to Version 4.0 of the Global GreenTag International Product Certification Standard, under the certified name Kingspan Wall Panels.

A GreenRate Level A license is the highest-ranking level in GreenTag's GreenRate program. As a result, Architectural Wall Panels receive the maximum recognition by the Green Building Council of Australia's Green Star® building rating tools scheme. The recognition provides assurance to green building projects that the product has demonstrated a maximum commitment to low toxicity, compliance to relevant social and environmental laws in the country of operation, fit for purpose certification, availability of replacement parts, a design for recycling and/or reuse and healthy VOC levels.

Biological

Kingspan PIR foam core used in the manufacture of Architectural Wall Panels are free from urea formaldehyde.

Accreditations



Contact Details

Australia

Kingspan Insulated Panels Pty Ltd
38-52 Dunheved Circuit | St Marys
NSW 2760 Australia

T: +61 (02) 8889 3000

F: +61 (02) 8889 3099

E: info@kingspanpanels.com.au
kingspanpanels.com.au



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up to date version of this
Product Data Sheet.

For the product offering in other markets please contact your local sales representative or visit www.kingspanpanels.com

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