

Insulated Panels
Australia

KS1100KP Karrier Wall Panel Product Data Sheet



Product Data

Product Overview

KS1100KP Karrier Wall Panels are factory-engineered panel systems that provide the structural support, thermal and weather protection for direct-fix or ventilated cavity rainscreen facades. Panels can be used for both vertical or horizontal orientations.

KS1100KP Karrier Wall Panels can support the range of metallic and non-metallic Kingspan Rainscreen Facades which are available in both direct-fix and ventilated arrangements.



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	2.23	0.44	2.49	2.30	11.1
75	3.43	0.29	3.75	3.46	12.1
100	4.60	0.21	4.96	4.58	12.8
125	5.76	0.17	6.18	5.70	14.0
150	6.92	0.14	7.39	6.82	14.7
200	9.25	0.10	9.82	9.05	16.6

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. KS1100KP Karrier 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	2.0m - 13.7m
Longer lengths (non-standard)	13.7m - 16.1m
Export of Australia / Sea freight to WA	11.8m

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

Fixing Method

Through-fix.

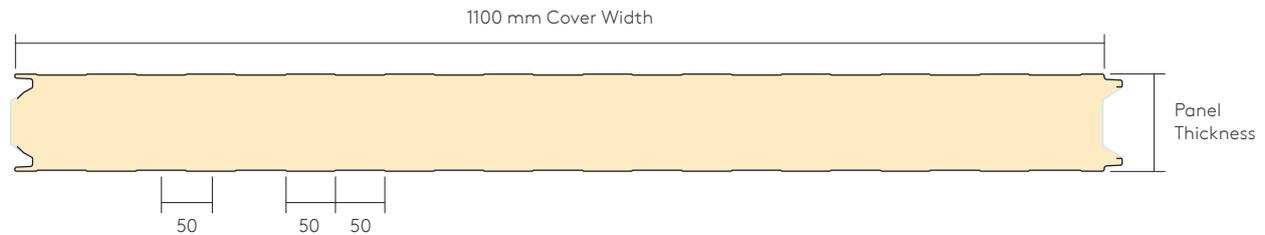
Product Tolerances

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

Rib Profile (External and Internal Facing)



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

Insulation Core

KS1100KP Karrier 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 KS1100KP Karrier Wall Panel.

Certification and Testing

Fire Performance

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: 2
NCC Group Number in accordance with AS 5637.1: 2015	AS 5637.1: 2015 / ISO 9705 2003	Group 2
Smoke Growth Rate Index (SMOGR _{RC}) (m ² /S ² x 1000)		< 100

Acoustic Performance

For a sound transmission reduction, KS1100KP Karrier Wall Panels have a weighted sound reduction index (SRI) of $R_w = 24$ dB. 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

For specific acoustic information contact Technical Services.

Materials

External Weather Sheet and Internal Liner

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

Coatings

External Weather Sheet

- Standard: Windspray.

Internal Liner

- Colour: Off White.

Other Internal Coating Options*

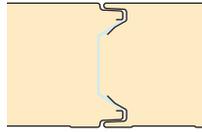
- Kingspan AQUAsafe: The coating has been developed for use as the internal lining of insulated panels to suit high humidity internal environments
- Kingspan AQUAsafe 25 and Kingspan AQUAsafe 55: The coating has been developed for use as the internal lining of insulated panels to swimming pool internal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

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

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Panel Joint

The tongue and groove joint achieves excellent thermal performance. The panel side joint requires a site applied vapour weather seal.



Quality and Durability

KS1100KP Karrier 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.

Packaging

KS1100KP Karrier 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 1200mm. 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.

KS1100KP Karrier Wall Panels have Environmental Product Declarations in accordance with the requirements of ISO 14025 and EN 15804: 2012 + A2: 2019 for 50mm to 200mm thickness.

KS1100KP Karrier Wall Panel 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, KS1100KP Karrier Wall Panel receives 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 KS1100KP Karrier Wall Panels are free from urea formaldehyde.

Accreditations



Contact Details

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Product Data Sheet.

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