Insulated Panels
Australia

K-PIR™ Roofliner Panel

Product Data Sheet

- Industry-Leading Thermal Performance*
- High Environmental Performance
- Industry-Leading Fire Performance*
- Structural and Thermal Performance Warranty

K-PIR™

Formerly known as KS1100/1200RL Roofliner Panel

Why the change? As part of our new K-PIR™ product branding, this product has been renamed. Performance claims have improved via expanded testing, the product remains the same.

* Industry-leading thermal and fire performance claims are based on comparisons with other PIR foam-cored insulated panels. Performance varies by product, application and system configuration.

Kingspan®

Product Data

OVERVIEW

K-PIR™ Roofliner Panel is an insulated Roof Panel, designed to be used as an insulated composite panel substrate for site-applied single-ply membranes; or installed under fully supported or self-supported aluminium, steel, copper, zinc and stainless steel roof systems.

Suitable for buildings with low pitch roofs.



APPLICATIONS

K-PIR™ Roofliner Panels are suitable for most building applications as an external façade element in either horizontal or vertical applications.

- Mid-rise office and residential
- Commercial and logistics
- Healthcare
- Data centres
- Industrial and manufacturing
- Hotel and leisure

DIMENSIONS, THERMAL PERFORMANCE & WEIGHT

Panel Nominal Thickness (mm)	Declared R-Value (m^2K/W) at 23°C	Product R-Value (m^2K/W) at 23°C	Product U-Value (W/m^2K) at 23°C	Total R-Value (m^2K/W)		Weight* (kg/m^2)	
				Heat Flow Out (Winter)	Heat Flow In (Summer)	1,100 mm cover width	1,200 mm cover width
50	2.20	2.21	0.452	2.46	2.32	11.3	11.5
75	3.45	3.46	0.289	3.76	3.52	12.0	12.5
80	3.70	3.71	0.270	4.03	3.77	12.3	12.8
100	4.70	4.74	0.211	5.10	4.75	13.0	13.5
125	6.00	6.04	0.166	6.46	6.01	14.0	14.5
150	7.35	7.37	0.136	7.85	7.29	15.0	15.5
200	10.05	10.08	0.099	10.68	9.89	17.0	17.5

Declared Thermal Conductivity (λ Value) 0.023 W/mK @23°C (thickness ≤ 50 mm).
Declared Thermal Conductivity (λ Value) 0.022 W/mK @23°C (thickness 75 mm to 80 mm).
Declared Thermal Conductivity (λ Value) 0.021 W/mK @23°C (thickness 100 mm to 150 mm).
Declared Thermal Conductivity (λ Value) 0.020 W/mK @23°C (thickness 200 mm).
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. K-PIR™ Roofliner Panels are manufactured, tested and packaged in conformance with AS/NZS 4859.1: 2018.
* Actual weight subject to vary ±10% due to manufacturing and raw material tolerances. Values for standard skin thicknesses shown, for alternative skin thicknesses contact Kingspan.

COVER WIDTHS & AVAILABLE LENGTHS

K-PIR™ Roofliner Panel is available in a choice of two cover widths.

KS1100RL	1,100 mm
KS1200RL	1,200 mm

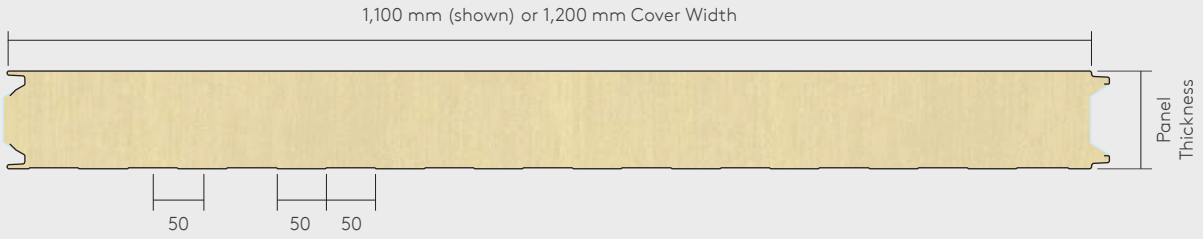
Standard lengths	2.0 m - 13.7 m
Longer lengths (non-standard)	13.7 m - 16.1 m*
Export of Australia / Sea freight to WA	11.8 m

Note: Additional costs and transport restrictions may apply for non-standard lengths.
* 16.1 m length is not available on 50 mm and 75 mm panels.

Product Data

PROFILE

Flat Profile (External Facing), Rib Profile (Internal Facing).



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

PRODUCT TOLERANCES

Length < 3 m	± 5 mm
Length > 3 m	± 10 mm
Cover Width	± 2 mm
Thickness < 100 mm	± 2 mm
Thickness > 100 mm	± 2%
Squareness	≤ 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 up to maximum 20 mm

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

FIXING METHOD

K-PIR™ Roofliner Panels are through-fix.



Product Data

INSULATION CORE

K-PIR™ Roofliner Panels are manufactured with a polyisocyanurate (PIR) core.

K-PIR™

STRUCTURAL PERFORMANCE

Please contact Technical Services for project specific support on the spanning performance of the K-PIR™ Roofliner Panels.

CERTIFICATION & 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: 1

Test	Test Method	Result
NCC Group Number in accordance with AS 5637.1: 2015	AS 5637.1: 2015 / ISO 9705 2003	Group 1 - 1,200mm Group 2 - 1,100mm
Smoke Growth Rate Index (SMOGRA$_{RC}$) (m^2/S^2 x 1000)		< 100



Product Data

ACOUSTIC PERFORMANCE

For a sound transmission reduction, K-PIR™ Roofliner 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 Z275 metallic coating in accordance with AS 1397: 2021.
- Paint Coating in accordance with AS / NZS 2728: 2013.

Internal Liner

- G300S steel with Z275 metallic coating in accordance with AS 1397: 2021.
- Paint Coating in accordance with AS / NZS 2728: 2013.

COATINGS

External Weather Sheet and Internal Liner

- Standard: Off White. Other colours are available on request. Please contact your local area sales manager for further information.

Other Internal Coating Options*

- Kingspan AQUAsafe: The coating has been developed for use as the internal lining of insulated panels to suit environments that require long term corrosion resistance and durability, facilities such as washrooms / fabric manufacturing, agricultural and livestock facilities.
- 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.

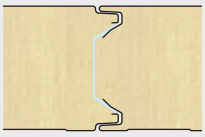
QUALITY & DURABILITY

K-PIR™ Roofliner Panels are manufactured from high 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.

PANEL JOINT

The tongue and groove joint achieves high thermal performance. The panel side joint can accommodate vapour or hygiene safe seals.



PACKAGING

K-PIR™ Roofliner 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 1,200 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.

Product Data

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.

BIOLOGICAL

Kingspan PIR foam core used in the manufacture of K-PIR™ Roofliner Panels are free from urea formaldehyde.

ENVIRONMENTAL

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

K-PIR™ Roofliner Panels have Environmental Product Declarations in accordance with the requirements of ISO 14025 and EN 15804: 2012 + A2: 2019 for 40 mm to 120 mm thickness.

K-PIR™ Roofliner Panels is certified with a Global GreenTag GreenRate™ Level A certification to Version 4.1 of the Global GreenTag International Product Certification Standard, under the certified name K-PIR™ Roofliner Panel.

A GreenRate Level A license is the highest-ranking level in GreenTag's GreenRate program. As a result, K-PIR™ Roofliner Panels 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 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.

ACCREDITATIONS

GREENTAG CERTIFIED
GreenRate | Level A
trust brands™

FPA AUSTRALIA GOLD MEMBER
Fire Protection Association Australia

Green Building Council Australia
Member 2025-2026

100% We buy GreenPower®

AUSTRALASIA EPD®
ENVIRONMENTAL PRODUCT DECLARATION

Product Data



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Kingspan®

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

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