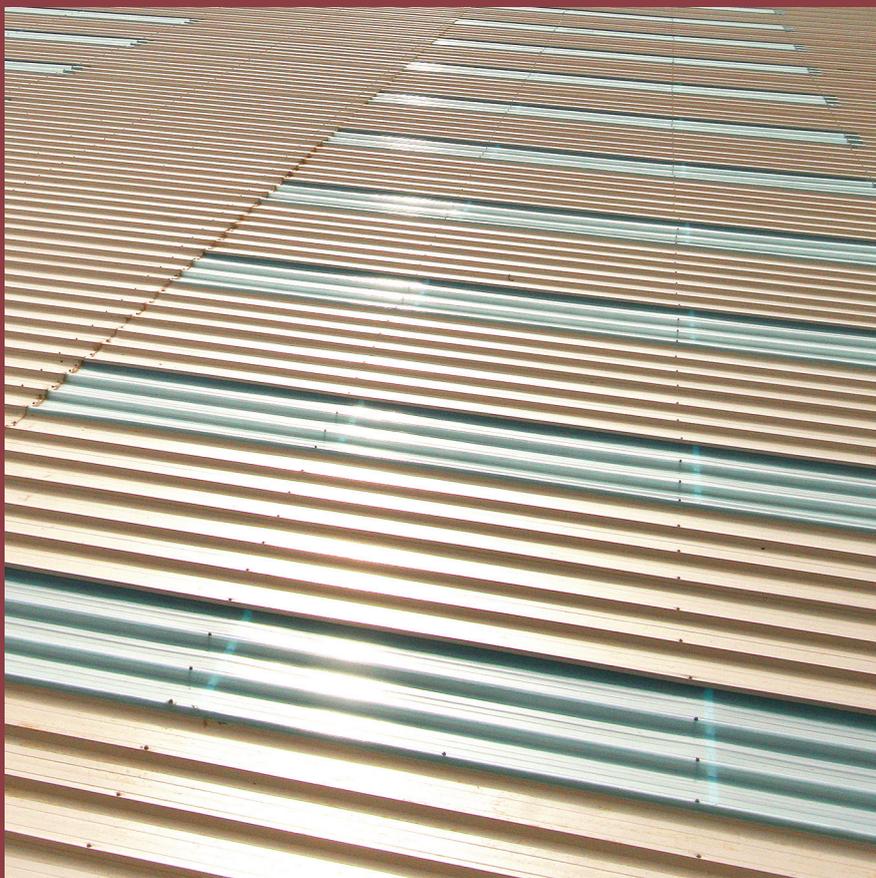


Insulated Roof & Wall Panels

Product Data Sheet



Foilback KS1000 FB
Insulated Roof Panels

Product Overview

Kingspan Foilback is supplied with a pre-painted Steel external (Aluzinc also available on request) with a choice of silver or white internal foil liner.

Application

Kingspan Foilback (KS1000 FB) is designed for applications with suspended ceilings that require thermal regulation compliance (air conditioned space) and used in combination with additional insulation methods or for applications where a prefinished steel internal liner is not required.

Not recommended for high humidity or applications or areas that are subject to wash down regimes.



Foilback
KS1000 FB

Panel Performance

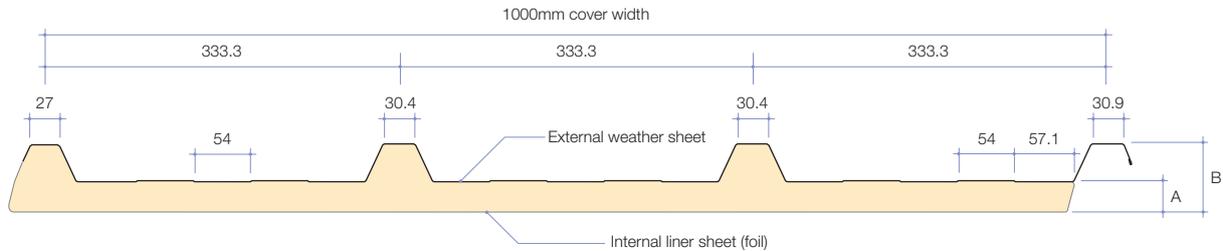
Panel Properties and Thermal Performance

A - Core Thickness (mm)	30
B - Overall Dimension (mm)	65
R Value (m ² K/W)	2.42*
U Value (W/m ² K)	0.41
Weight (kg/m ²)	6.1

* This is a summer (down) condition for a low roof sloped commercial building. Where there is a suspended ceiling below this can be increased to R=3.65 down. Winter (up) conditions in both cases are less.

Available Lengths

Standard lengths are from 2m to 13.7m, longer lengths can be supplied on request. For orders supplied outside of Australia maximum lengths are 11.8m. Maximum length for panels transported by rail is 12m.



Acoustic Performance

For sound transmission reduction, Kingspan panels typically have a single figure weighted sound reduction index (SRI) of $R_w = 24$ dB. For specific acoustic solutions contact Kingspan Technical Services.

Sound Reduction Index (SRI)

Frequency (Hz)	63	125	250	500	1K	2K	4K	8K
SRI (dB)	13	17	21	26	26	26	42	52

Fire Performance

When tested to AS/NZS 1530.3, Kingspan panels achieved the fire hazard results

Ignitability Index	0
Spread of Flame Index (SFI)	0
Heat Evolved Index	0
Smoke Developed Index (SDI)	2

The Kingspan Foilback (KS1000 FB) insulant core is an FM Global approved formulation. The foil backing coat has a flammability index <5 , when tested to AS 1530.2.

Materials

Exterior Weather Sheet

- 0.5mm thick Zinalume G300S AZ150/ AZ200 AM coated steel to AS1397
- Colours as per the Kingspan Colour Range

Insulation Core

- Polyisocyanurate (PIR), with zero Ozone Depletion Potential (Zero ODP). Available in FM Global insurer approved Firesafe certified product range.
- PIR foam is a thermosetting material. It does not melt, flow or drip when exposed to fire. It will form a strong char that helps protect the foam core and prevent flame spread within the panels.

Internal Liner Sheet

- An aluminium foil tape

Ancillaries

Kingspan also provides daylighting solutions, profiled foam closers, butyl tapes, insulated gutters, and other ancillary items.

Product Selection Assistance

Sales representatives are available nationwide to answer queries on product options, assist with detailing, spans and other queries. They can also provide early stage budget estimates and co-ordinate the provision of project specifications.

Technical Assistance

Our technical team is available to provide specific advice on panel spans, product specifications, standard and bespoke detailing, panel optimisation, fire wall options, project specific acoustic solutions, panel guarantees, thermal condensation risk calculation along with general building science cladding advice.

Kingspan Technical Services can provide 'side by side' assistance with regard to project detailing, attending design meetings, providing training and undertaking site visits when required.

Guarantees

Kingspan will provide product guarantees on an individual project basis.

Guarantee's are typically up to 15 years in a non marine / geothermal environment. All guarantees are subject to maintenance regime. Specialist coatings are available for marine and other more corrosive areas.

Environmental

Kingspan has undertaken a Life Cycle assessment of the KS1000FB panels, and have published an Environmental Product Declaration (EPD) on their performance. The result shows that the Australian made panels are consistent with the Green Guide A+ rating achieved by the UK sourced materials.

Kingspan Insulated Panels Australian manufactured products have achieved a GreenTagCert™ Gold Plus certification with a GreenRate® Level A. Kingspan was the first insulated panel manufacturer to receive this globally respected third party certification which allows specifiers to easily achieve points for both the Green Building Councils of Australia and New Zealand under the Green Star® programs. Full Green Tag certificates are available at www.kingspanpanels.com.au



Biological

Kingspan panels are normally immune to attack from mould, fungi, mildew, and vermin. No urea or formaldehyde is used in the construction, and the panels are not considered deleterious to health.

Quality and Durability

KS1000FB panels are manufactured to ISO 9001 standards from the highest quality materials, using state of the art production equipment to rigorous quality control standards, ensuring long term reliability and service life.

Delivery & Packing

Standard Packing

Protective film is applied to the external face.

Kingspan roof panels are stacked horizontally (weather sheet to weather sheet minimise pack height).

The number of panels in each pack depends on panel thickness.

Delivery

All deliveries (unless indicated otherwise) are by road transport to project site by flat bed truck for off loading by crane or fork hoist.

Off loading is the responsibility of the installer.

Handling guidelines are available from Kingspan Technical Services.

Site Installation Procedure

A site assembly instruction brochure is available from Kingspan Technical Services.

Spans

Single Span Condition

Panel Thickness mm	Load Type	Span L in metres						
		0.6	0.8	1.0	1.2	1.4	1.6	1.8
Uniformly distributed loads kN/m ²								
Ultimate Limit State (ULS)								
30mm	Pressure	12.99	7.28	4.64	3.20	2.34	1.77	1.38
	Suction							
	3 Fasteners	15.21	8.58	5.51	3.84	2.84	2.18	1.74
	Serviceability Limit State (ULS)							
	Pressure	-	7.49	3.81	2.18	1.35	0.89	0.61
	Suction	-	11.84	6.09	3.55	2.25	1.53	1.09

Double Span Condition

Panel Thickness mm	Load Type	Span L in metres						
		0.6	0.8	1.0	1.2	1.4	1.6	1.8
Uniformly distributed loads kN/m ²								
Ultimate Limit State (ULS)								
30mm	Pressure	8.28	5.40	3.81	2.84	2.19	1.74	1.41
	Suction							
	3 Fasteners	7.87	5.92	4.74	3.32	2.45	1.89	1.50
	Serviceability Limit State (ULS)							
	Pressure	-	-	9.25	5.33	3.34	2.22	1.54
	Suction	-	-	14.59	8.47	5.35	3.60	2.55

Notes:

1. Fastener calculations based upon minimum 1.2mm thick steel purlins, grade not less than G450.
2. The following deflection limits have been used:
 Pressure $\frac{1}{250}$
 Suction $\frac{1}{150}$
3. The table is based on a support width of 50mm.

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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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