



## AIR-CELL Permishield®

### BREATHABLE INSULATION MEMBRANE



- 3-in-1 Insulation, thermal break and vapour permeable sarking
- Helps achieve a 6-star house energy rating
- Fibre-free, non-allergenic, non-irritant
- Quick and easy to install
- Strong, tough, durable
- Water-resistant and unaffected by moisture
- Anti-bacterial and anti-fungal
- Rodent and insect resistant
- Compliant with AS/NZS 4859.1
- CodeMark-certified for BCA compliance



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## Product Description

**Kingspan AIR-CELL Permishield®** (Patent No. 2006203389) is a revolutionary breathable vapour barrier and insulation wrapped up in a single product. **Kingspan AIR-CELL Permishield®** is designed specifically for steel-framed wall applications for use behind lightweight cladding materials that require vapour permeance. Manufactured with a patented closed-cell structure sandwiched by highly reflective foil surfaces and pierced with tiny, evenly-spaced breather holes, **Kingspan AIR-CELL Permishield®** allows building professionals to do away with the traditional sarking-plus-batts combination in order to achieve thermal compliance as well as satisfy vapour permeance.

Product Data	AIR-CELL Permishield® 65	AIR-CELL Permishield® 80
Product Thickness	6.5 mm	8 mm
Thermal Break	R0.2	R0.25
Roll Diameter	455 mm	500 mm
Roll Weight	9.5 kg	10 kg
Roll Size	1350 mm x 22.25 m (30 m <sup>2</sup> )	
<b>Reflectance</b>		
Anti-Glare Face	95%	
Reflective Face	97%	
<b>Emittance</b>		
Anti-Glare Face	E0.05	
Reflective Face	E0.03	

## Thermal Performance

Cladded stud-framed walls	Heat Flow In	Heat Flow Out
<b>AIR-CELL Permishield® 65</b>	R <sub>T</sub> 1.6	R <sub>T</sub> 1.8
<b>AIR-CELL Permishield® 80</b>	R <sub>T</sub> 1.7	R <sub>T</sub> 1.9

*The R-values shown are Total R-values for the building element as required by the Energy Provisions of the Building Code of Australia. Kingspan AIR-CELL® products are manufactured, tested and packaged in conformance with AS/NZS 4859.1:2002 - Amdt 1. The contribution of the product Total R-values depends on installation and environmental conditions. The R-value will be reduced in the event of the accumulation of dust on the upward facing surfaces and in those cavities that are ventilated.*

## Product Testing

Test	Test Method	Result
Corrosion Resistance	AS/NZS 4859.1 Appendix 1	Pass
Flammability	AS 1530.2	Low (Index ≤ 5)
Ignitability		
Flame Spread	AS 1530.3	0/0/0/0-1
Heat Release		
Smoke Release		
Cone Calorimeter	AS/NZS 3837	Group 1
Thermal Resistance	ASTMC518	R0.2 (6.5 mm) R0.25 (8 mm)
Emittance	ASTM-E408	Reflective E0.03 Anti-Glare E0.05
Vapour Transmission	ASTM-E96	Medium
Dry Delamination	AS/NZS 4201.1	Pass
Wet Delamination	AS/NZS 4201.2	Pass
Shrinkage	AS/NZS 4201.3	≤ 0.5%
Water Penetration	AS/NZS 4201.4	High Resistance
Water Absorbency	AS/NZS 4201.6	Unclassified
Duty	AS 4200.1 6.1.4	Extra Heavy

