



AIR-CELL[®]

CLEAN, FIBRE-FREE INSULATION



Breathe Easy



Product Profile

Kingspan AIR-CELL® Insulation is a low volume, high performance insulation medium that combines the technology of reflective air spaces with either a closed-cell, physically cross-linked foam structure or an encapsulated air cell structure to deliver a highly efficient insulation medium.

Wrapped in an ultra-thin fibre-free material, *Kingspan AIR-CELL®* has been developed to replace the use of both conventional fibre based insulation and vapour barrier products all in the one application.

Kingspan AIR-CELL® works by first reflecting up to 97% of radiant heat away from its surface. The small amount of heat absorbed is then further reduced by the conductional resistance of the polymer air cell or foam structure, significantly reducing your energy needs associated with heating and cooling.

The *Kingspan AIR-CELL®* range of products are designed not to be affected by moisture or humidity and excel in high and low temperature building applications.

Production Certification

Kingspan AIR-CELL® products are CodeMark certified* for compliance with the Building Code of Australia and insulation standard AS/NZS 4859.1.

CodeMark is considered the building industry's highest level of product conformance. *Kingspan AIR-CELL®* products are still the only thermo reflective insulation products in Australia with this level of independent certification so you can have total peace of mind.



* Except *Kingspan AIR-CELL* Insulaire® and *Kingspan AIR-CELL* Permico™



Summer



Winter



Kingspan **AIR-CELL** Glareshield®

Applications:

- Metal roof/tiled roof
- Brick veneer wall
- Reverse brick veneer wall
- Double brick cavity wall

Kingspan **AIR-CELL** Retrosshield®

Applications:

- Concrete wall/roof/underfloor
- Warehouse retrofit
- Ceiling retrofit
- Underfloor retrofit

Kingspan **AIR-CELL** Insulaire®

Applications:

- Attic conversions
- Applications where a visible white finish is desired

Kingspan **AIR-CELL** Insulbreak®

Applications:

- Steel-framed walls
- Steel-framed roofs
- Thermal break compliance

Kingspan **AIR-CELL** Permishield®

Applications:

- Steel-framed walls for use behind lightweight cladding materials that require vapour permeance
- Thermal break compliance

Kingspan **AIR-CELL** Permifloor®

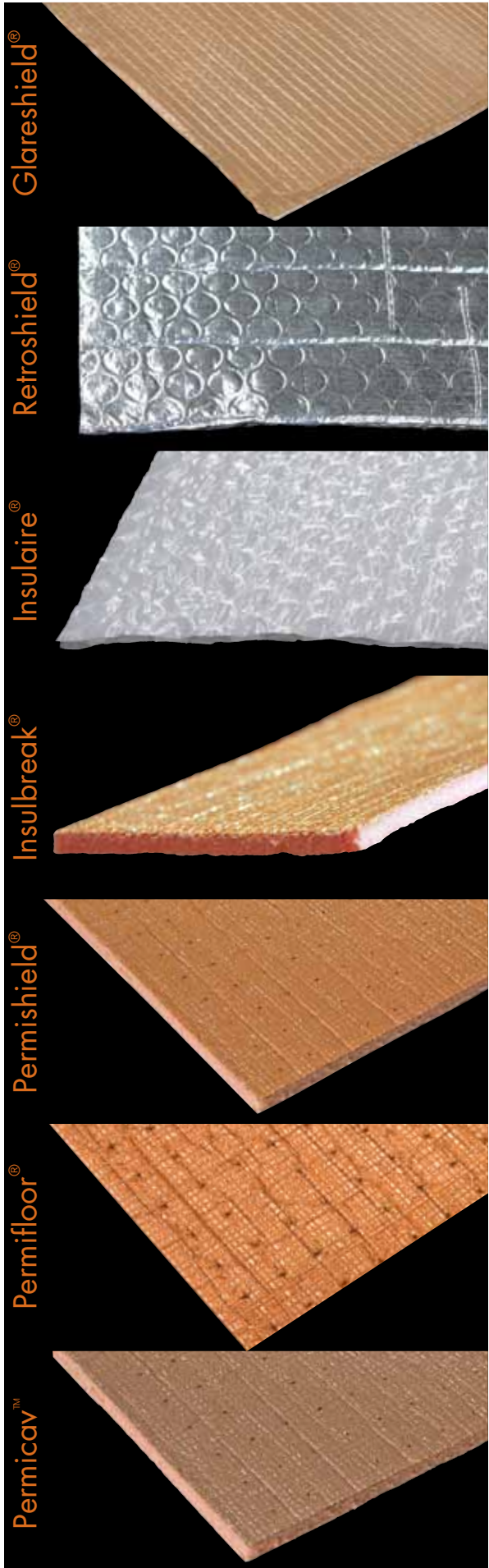
Applications:

- Suspended framed floors as a 2-in-1 insulation and moisture management solution

Kingspan **AIR-CELL** Permicao™

Applications:

- Double brick cavity walls



Product Benefits

- **Advanced thermal performance**
- **Helps achieve a 6-Star house energy rating**
- **Clean, fibre-free, non-allergenic, non-irritant**
- **All-in-one insulation, vapour barrier and radiant barrier**
- **Fire-tested and suitable for fire-prone areas**
- **Quick and easy to install**
- **Strong, tough, durable**
- **Rodent and insect resistant**
- **Water resistant and not affected by humidity**
- **Compliant with AS/NZS 4859.1**
- **CodeMark-certified for BCA compliance***

Thermal Performance

| Application | Product | Heat Flow In | Heat Flow Out |
|---|---|--------------------|--------------------|
| Roof | | | |
| Metal roof (ventilated) | <i>Kingspan</i> AIR-CELL Glareshield® | R _T 2.6 | R _T 1.2 |
| Tile roof (ventilated) | <i>Kingspan</i> AIR-CELL Glareshield® | R _T 2.2 | R _T 1.0 |
| Steel-framed roof (ventilated) | <i>Kingspan</i> AIR-CELL Insulbreak® 65 | R _T 2.7 | R _T 1.3 |
| Walls | | | |
| Double brick cavity wall | <i>Kingspan</i> AIR-CELL Glareshield® | R _T 1.9 | R _T 2.1 |
| Brick veneer | <i>Kingspan</i> AIR-CELL Insulbreak® 65 | R _T 1.9 | R _T 2.2 |
| Brick veneer | <i>Kingspan</i> AIR-CELL Glareshield® | R _T 1.8 | R _T 2.1 |
| Reverse brick veneer | <i>Kingspan</i> AIR-CELL Glareshield® | R _T 1.9 | R _T 2.1 |
| Steel stud-framed wall | <i>Kingspan</i> AIR-CELL Insulbreak® 65 <i>Kingspan</i> AIR-CELL Permishield® 65 | R _T 1.6 | R _T 1.8 |
| Floors | | | |
| Suspended framed floor (open beneath) | <i>Kingspan</i> AIR-CELL Permifloor® 500 | R _T 1.2 | R _T 1.9 |
| Suspended framed floor (enclosed beneath) | <i>Kingspan</i> AIR-CELL Permifloor® 500 | R _T 1.9 | R _T 3.3 |
| Retrofit | | | |
| Underfloor retrofit | <i>Kingspan</i> AIR-CELL Permifloor® | R _T 1.2 | R _T 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.

* Except *Kingspan* **AIR-CELL** Insulcore® and *Kingspan* **AIR-CELL** Permivac™



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