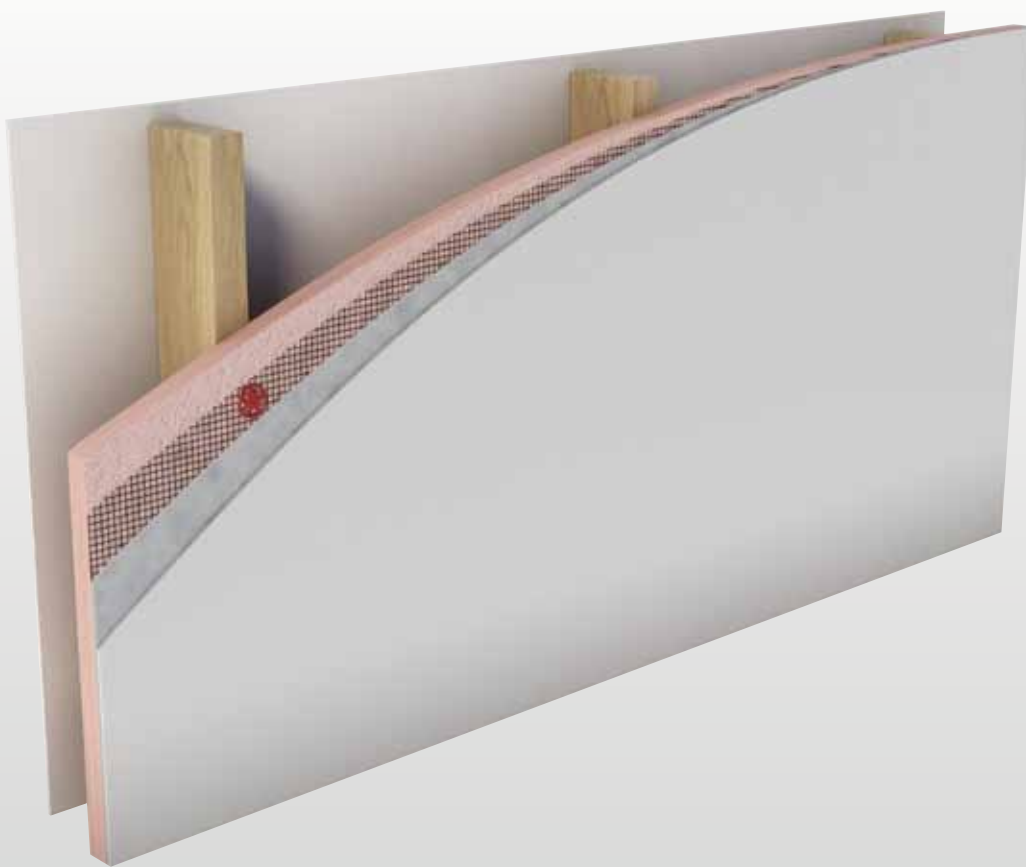




# Kooltherm® K5 External Wall Board

INSULATION FOR USE BEHIND TRADITIONAL AND LIGHTWEIGHT POLYMER MODIFIED RENDERS



- Super high performance rigid thermoset phenolic insulation
- Fibre-free, closed cell insulation core
- Suitable for use behind traditional and lightweight polymer modified renders
- Transforms and upgrades the appearance of existing buildings
- Resistant to the passage of water vapour
- Easy to handle and install
- Ideal for new build and refurbishment
- Manufactured with a CFC/HCFC-free blowing agent that has zero ODP and low GWP
- Compliant with AS/NZS 4859.1
- CodeMark-certified for BCA compliance



*Low Energy –  
Low Carbon Buildings*

# Typical Constructions and Total R-values

## Insulated Render System on Concrete Wall

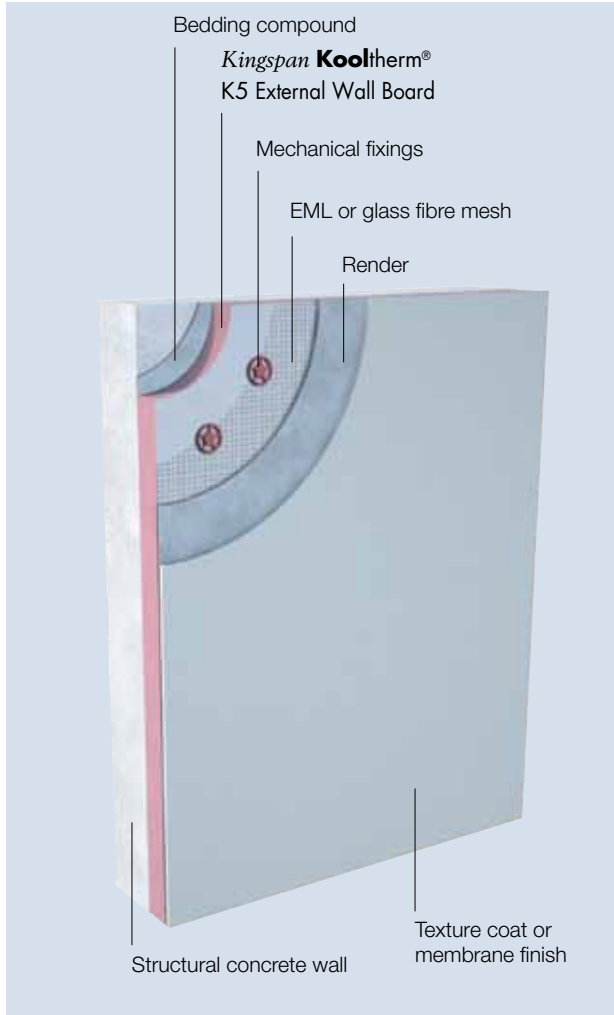


Figure 1

Total R-values for various thicknesses of Kingspan Kooltherm® K5 External Wall Board		
Product Thickness (mm)	Heat flow in	Heat flow out
50	R <sub>T</sub> 2.9	R <sub>T</sub> 2.8
80	R <sub>T</sub> 4.4	R <sub>T</sub> 4.3

## Insulated Render System on Masonry Block Wall

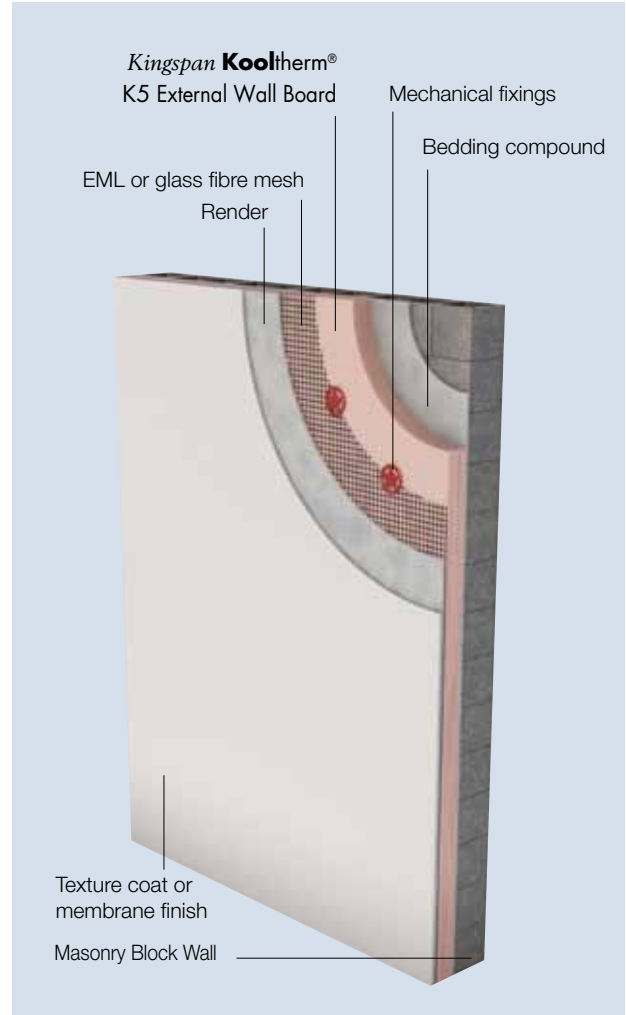


Figure 2

Total R-values for various thicknesses of Kingspan Kooltherm® K5 External Wall Board		
Product Thickness (mm)	Heat flow in	Heat flow out
50	R <sub>T</sub> 2.8	R <sub>T</sub> 2.8
80	R <sub>T</sub> 4.3	R <sub>T</sub> 4.3

### Assumptions

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 Kooltherm® products are manufactured, tested and packaged in conformance with AS/NZS 4859.1.

The contribution of the product Total R-values depends on installation and environmental conditions.

## Insulated Render System on Steel-framed Wall

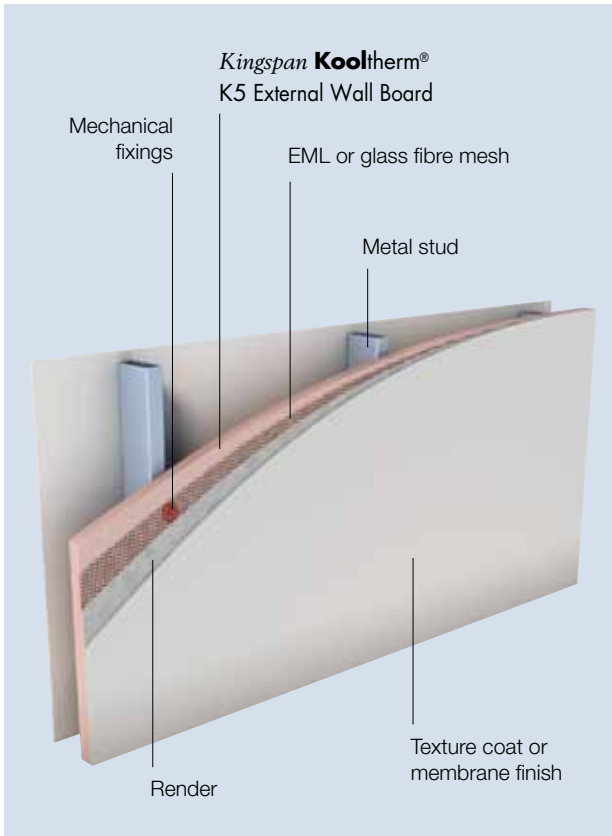


Figure 3

Total R-values for various thicknesses of Kingspan <b>Kooltherm</b> ® K5 External Wall Board		
Product Thickness (mm)	Heat flow in	Heat flow out
50	R <sub>T</sub> 3.0	R <sub>T</sub> 3.0
80	R <sub>T</sub> 4.5	R <sub>T</sub> 4.5

## Insulated Render System on Timber-framed Wall

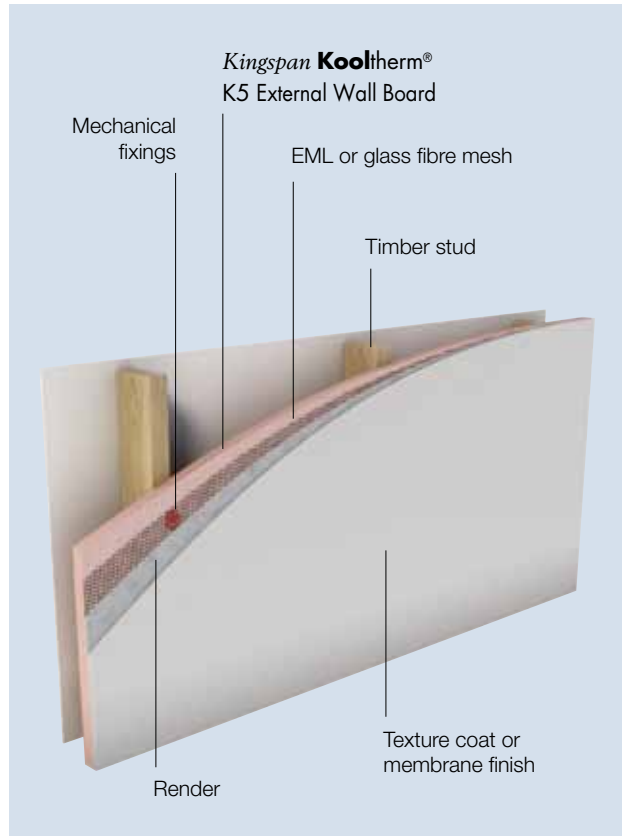


Figure 4

Total R-values for various thicknesses of Kingspan <b>Kooltherm</b> ® K5 External Wall Board		
Product Thickness (mm)	Heat flow in	Heat flow out
50	R <sub>T</sub> 3.0	R <sub>T</sub> 3.0
80	R <sub>T</sub> 4.5	R <sub>T</sub> 4.5

# Product Details

## Product Description

**Kingspan Kooltherm® K5 External Wall Board** is a super high performance, fibre-free rigid thermoset, closed cell phenolic insulation core, sandwiched between two layers of tissue based facing autohesively bonded to the insulation core during manufacture.



**Kingspan Kooltherm® K5 External Wall Board** is manufactured without the use of CFCs/HCFCs and has zero Ozone Depletion Potential (ODP) and low Global Warming Potential (GWP).



### Product Data

Thermal Conductivity (λ-value)	0.020 W/m·K (Insulant thickness ≥ 45 mm)
Product Dimensions	2270 mm x 1200 mm (2.72 m <sup>2</sup> ) 1200 mm x 600 mm (0.72 m <sup>2</sup> )
Product Thickness	50, 80 mm <i>Other thicknesses available upon enquiry. Minimum order quantities apply</i>

## Product R-value

Product Thickness	Product R-value
50 mm	R2.5
80 mm	R4.0



Figure 5 Super high performance **Kingspan Kooltherm® K5 External Wall Board**

## Renderers

The chosen render system must be pre-trialed and tested to ensure compatibility with the **Kingspan Kooltherm® K5 External Wall Board**. It is recommended that polymer modified renders be used for flexibility and adhesion, and that total coating be at least 6 mm thick for system integrity.

## Specification Guide

### **Kingspan Kooltherm® K5 External Wall Board**

The external wall insulation shall be CodeMark-certified **Kingspan Kooltherm® K5 External Wall Board** \_\_\_ mm thick comprising a CFC/HCFC-free and zero Ozone Depletion Potential (ODP) rigid thermoset phenolic insulation core with a tissue based facing on both sides manufactured under a management system certified to BS / I.S. EN ISO 9001:2008, BS / I.S. EN ISO 14001:2004 and BS / I.S. OHSAS 18001:2007 by Kingspan Insulation Limited and shall be installed by approved installers (please contact Kingspan Insulation).

## Standards and Approvals

**Kingspan Kooltherm® K5 External Wall Board** is manufactured to the highest standards and certified under the following management systems:

Standard	Management System
BS / I.S. EN ISO 9001:2008	Quality Management
BS / I.S. EN ISO 14001:2004	Environmental Management
BS / I.S. OHSAS 18001:2007	Health and Safety Management

## Product Testing

Characteristic	Standard	Result
Compressive Strength	BS / I.S. EN 826:1996	Typically exceeds 120 kPa at 10% compression
Water Vapour Resistivity	BS EN 12086:1997 / I.S. EN 12086:1998	> 300 MN·s/g·m

## Fire Performance

Test	Test Method	Result
Ignitability, Flame spread, Heat release, Smoke release	AS 1530.3	Spread of Flame Index: 0 Smoke Development ≤ 4
Fire Propagation, Surface Spread of Flame	BS 476 Part 6 BS 476 Part 7	Class 0* (in accordance with the Building Regulations in England, Wales and Northern Ireland)

\*Applies only to the **Kingspan Kooltherm®** insulation core.

## Durability

If correctly applied, **Kingspan Kooltherm®** products can be expected to have a long life of service.

Their durability depends on the supporting structure and the conditions of its use.

**Kingspan Kooltherm®** products are warranted for a period of 10 years for both residential and commercial installations.\*

\* Subject to the terms of the complete **Kingspan Kooltherm®** warranty document which is available upon request or downloadable from [www.kingspaninsulation.com.au](http://www.kingspaninsulation.com.au).

# Installation Instructions

## Environmental Data

Aspect	Characteristic
Recyclability	Non-contaminated insulation site waste is recyclable, but there are currently no facilities in Australia to process returned material
Re-usability	Re-usable if removed with care (long term of service expected)
Water Use	No water used in Kingspan Insulation's manufacturing process
Blowing Agent Global Warming Potential (GWP)	Manufactured with a blowing agent that has low GWP
Blowing Agent Ozone Depletion Potential (ODP)	Manufactured with a CFC/HCFC-free blowing agent that has zero ODP
Packaging	Contains 0% recycled product Polythene wrap and EPS skids 100% recyclable

*Kingspan Kooltherm*® K5 External Wall Board should only be installed by approved installers. For more information please call Technical Services on 1300 247 235 or email [technical@kingspaninsulation.com.au](mailto:technical@kingspaninsulation.com.au)

System installation and construction details are available from our EIFS (External Insulation & Finishing System) partners.



## Handling and Storage

The polythene packaging of *Kingspan Kooltherm*® should not be considered adequate for long term outdoor protection. Ideally, boards should be stored inside a building. If, however, outside storage cannot be avoided, then the boards should be stacked clear of the ground and covered with a polythene sheet or weatherproof tarpaulin. Boards that have been allowed to get wet should not be used.

*Kingspan Kooltherm*® K5 External Wall Board should be protected from getting wet during periods of inclement weather prior to the application of the weatherproof render.



# Contact Details

## General Enquiries

Tel: 1300 247 235

Email: [info@kingspaninsulation.com.au](mailto:info@kingspaninsulation.com.au)

*Kingspan Insulation Pty. Ltd. reserves the right to amend product specifications without prior notice. The information, technical details and fixing instructions etc. included in this literature are given in good faith and apply to uses described. Recommendations for use should be verified as to the suitability and compliance with actual requirements, specifications and any applicable laws and regulations. For other applications or conditions of use, Kingspan Insulation offers a Technical Advisory Service the advice of which should be sought for uses of Kingspan Insulation products that are not specifically described herein. Please check that your copy of the literature is current by contacting us or visiting [www.kingspaninsulation.com.au](http://www.kingspaninsulation.com.au)*



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