Insulation

A4/6 K8 KIAU0081
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Kooltherm® K8 Cavity Board

CAVITY WALL INSULATION

- Super high performance rigid thermoset phenolic insulation
- Fibre-free, closed cell insulation core
- Clear cavity is maintained – resists moisture penetration
- Low emissivity foil facings significantly increase the thermal resistance of the cavity
- Easy to handle and install
- No CFC or HCFC used in manufacture
- Has zero ODP and low GWP
- Compliant with AS/NZS 4859.1

Fibre-free Core

Kingspan®

Low Energy – Low Carbon Buildings

Typical Constructions and Total R-values

Double Brick Cavity Wall

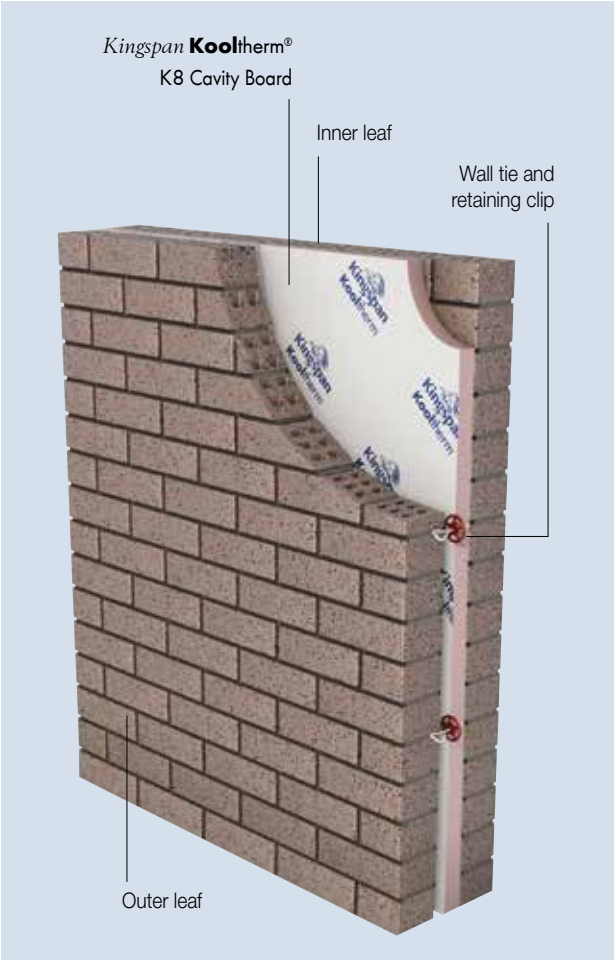

Figure 1

Total R–values for various thicknesses of *Kingspan* **Kool**therm® K8 Cavity Board		
Product Thickness	Heat flow in	Heat flow out
25 mm	R_T2.3	R_T2.3
40 mm	R_T3.1	R_T3.1

Brick / Block Cavity Wall

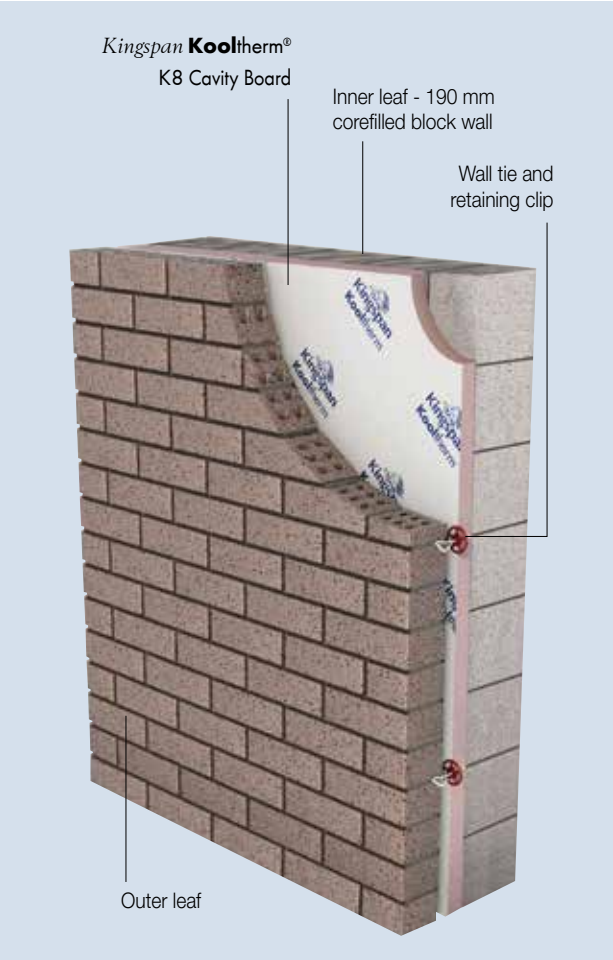

Figure 2

Total R–values for various thicknesses of *Kingspan* **Kool**therm® K8 Cavity Board		
Product Thickness	Heat flow in	Heat flow out
25 mm	R_T2.4	R_T2.3
40 mm	R_T3.1	R_T3.1

Assumptions

The R-values shown are Total R-values for the building element and are calculated in accordance with AS/NZS 4859.1 and NZS 4214. *Kingspan* **Kool**therm® 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.

Product Details

Product Description

Kingspan **Kool**therm® K8 Cavity Board is a super high performance, fibre-free rigid thermoset closed cell phenolic insulation core, sandwiched between two layers of reflective, low emissivity composite foil autohesively bonded to the insulation core during manufacture. This reflective, low emissivity surface improves the thermal resistance of any cavity adjacent to the board.

Fibre-free Core

Kingspan **Kool**therm® K8 Cavity Board is manufactured without the use of CFCs/HCFCs and has zero Ozone Depletion Potential (ODP) and low Global Warming Potential (GWP).

zero o.d.p

Product Data	
Thermal Conductivity (λ-value)	0.021 W/m·K (Insulant thickness 25 – 44 mm)
Emittance (Foil Face)	E0.06
Product Dimensions	1200 mm x 514 mm (0.61 m^2) *Other dimensions available upon enquiry. Minimum order quantities apply*
Product Thickness	25, 40 mm *Other thicknesses available upon enquiry. Minimum order quantities apply*

Product R-value

Product Thickness	Product R-value
25 mm	R1.2
40 mm	R1.9

Figure 3 Super high performance Kingspan **Kool**therm® K8 Cavity Board

Specification Guide

Kingspan **Kool**therm® K8 Cavity Board

The cavity wall insulation shall be *Kingspan* **Kool**therm® K8 Cavity Board ___ mm thick, with a tested smoke obscuration of not more than 100 m^2/kg, comprising a CFC/HCFC–free and zero Ozone Depletion Potential (ODP) rigid thermoset phenolic insulation core faced on both sides with reflective, low emissivity composite foil 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 in accordance with the instructions issued by them.

A Project Specific Warranty provided by Kingspan Insulation must be submitted.

Standards and Approvals

Kingspan **Kool**therm® K8 Cavity Board is manufactured to the highest standards and certified under the following management systems:

Standard	Management System
ISO 9001:2015	Quality Management
ISO 14001:2015	Environmental Management
OHSAS 18001:2007	Health and Safety Management
ISO 50001:2011	Energy Management

Product Testing

Characteristic	Standard	Result
Compressive Stress	AS 2498.3	Typically exceeds 100 kPa at 10% compression
Water Vapour Resistance	BS EN 12086:1997 / I.S. EN 12086:1998	> 100 MN·s/g

Fire Performance

Test	Test Method	Result
Ignitability, Flame spread Heat release, Smoke release	AS 1530.3	Spread of Flame Index: 0 Smoke Development ≤ 3
Flame Propagation (AS 1366)	AS 2122.1	Complies

Installation Instructions

Durability

If correctly applied, *Kingspan* **Kool**therm® 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 **Kool**therm® products are warranted for a period of 10 years for both residential and commercial installations.*

** Subject to the terms of the complete Kingspan* **Kool***therm® warranty document which is available upon request or downloadable from www.kingspaninsulation.co.nz.*

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

1. Construct the inner leaf to at least an appropriate level to allow installation of *Kingspan* **Kool**therm® K8 Cavity Board to proceed.
2. Remove excess mortar and mortar droppings from exposed edges of any installed insulation boards.
3. Offer the *Kingspan* **Kool**therm® K8 Cavity Board to the external face of the internal leaf and secure in place using the wall ties and retaining disc / clip.
4. Ensure wall ties include a retaining disc / clip and be of the double drip type, installed drip downward.
5. The outer leaf is then built up to the level of the top of the boards and the process is repeated.
6. Ensure that a residual cavity is maintained in accordance with the waterproof provisions set out in the NZBC.

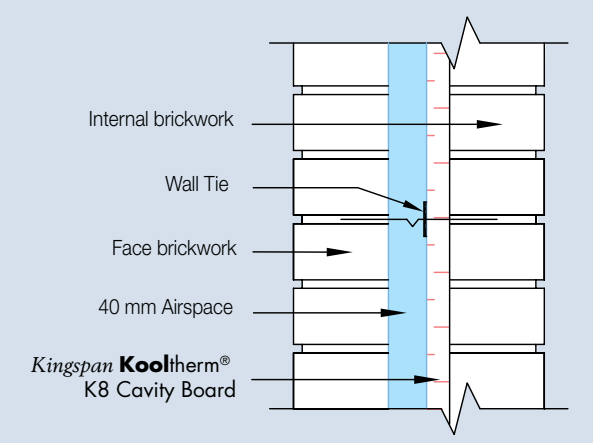

Figure 4 Side elevation – Double brick cavity wall with *Kingspan* **Kool**therm® K8 Cavity Board

Installation Instructions
(continued)

General Requirements

Cutting

Cutting should be carried out either by using a fine toothed saw, or by scoring with a sharp knife, snapping the board over a straight edge and then cutting the facing on the other side. Ensure accurate trimming to achieve close-butting joints and continuity of insulation.

Packaging

According to quantity, the boards are supplied in packs, labelled and shrink-wrapped in polythene.

Handling and Storage

Storage

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

Resistance to Solvents

The insulation core is resistant to short–term contact with petrol and with most dilute acids, alkalis and mineral oils. However, it is recommended that any spills be cleaned off fully before the boards are installed. Ensure that safe methods of cleaning are used, as recommended by suppliers of the spilt liquid. The insulation core is not resistant to some solvent-based adhesive systems, particularly those containing methyl ethyl ketone. Adhesives containing such solvents should not be used in association with this product. Damaged boards or boards that have been in contact with harsh solvents or acids should not be used.

OH & S

Kingspan Insulation products are chemically inert and safe to use. A Product Safety Information sheet is available from Kingspan Insulation Pty Ltd.

Please note that the reflective surfaces on this product are designed to enhance their thermal performance. As such, they will reflect light as well as heat, including ultraviolet light. Therefore, if these boards are being installed during bright or sunny weather, it is advisable to wear UV protective sunglasses or goggles and if the skin is exposed for a significant period of time, to protect bare skin with a UV block sun cream.

Foil facings are conductive to electricity - avoid contact with un-insulated electrical cables and fittings.

Contact Details

General Enquiries

Tel: 0800 1 23 23 1
Email: info@kingspaninsulation.co.nz

EnviroSpec
Product Partner

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.co.nz

Kingspan®

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