

This certificate is valid for Building Regulations & associated technical guidance in force on the date of registration and for the regulations in the countries indicated

Kingspan Kooltherm K5 Wall Board

Description of Product

This is an assessment of a Kingspan K5 rigid board insulation that is designed to be used externally on masonry or blockwork constructed walls.

It can be installed externally however it does require a protective cover and can be installed either; under an external traditional or polymer render finish, under a dry cladding system or under vertical slate/tile hanging.

Thicknesses currently range from 20mm-100mm in a single board. Other thicknesses can be achieved by double layering. It has a thermal conductivity of 0.020 – 0.023W/mK and is manufactured with a blowing agent that has zero depletion potential and low global warming potential.

It is a product that has a closed cell structure, is safe to install and resists moisture penetration and has a compressive strength of 120kPa at 10% compression when tested to BS/I.S. EN 826: 1996.



Key Factors Assessed

- Mechanical Resistance & Stability
- Safety in case of Fire
- Hygiene, health and environment
- Safety in Use
- Energy Economy and heat retention
- Durability serviceability and identification

Validity

This certificate was first issued on 18th November 2015 and is valid until 18th November 2019

Issue Dated 24th November 2016

Scope of Registration

The Kingspan K5 Wall Board is registered as an "external wall insulation board" that is approved for use as external insulation to a wall that is protected under a traditional or polymer render or other external cladding system.

The effects of a fire on the product within a cladding system are unlikely to have any detrimental impact on the material and will remain contained until the wall structure is destroyed. The boards will also will not present a smoke or toxic hazard if exposed to fire.

The product has a thermal conductivity of 0.020 – 0.023W/mK and one of the thinnest insulation products for a required U-Value and is manufactured with a blowing agent that has zero depletion potential and low global warming potential.

Conditions of Certificate

The product performance is greatly affected by the correct installation for each wall surface finish. It is therefore important that each application is installed to the manufacturer's requirements to avoid a reduction in both thermal and structural performance.

When used with a render finish the design of board fixings will be affected by site exposure and geographic location. Checks must be made with Kingspan at design stage.

Attention must be given to all reveals and other building ancillary fixings to prevent cold bridging.

Any external dry cladding system will have to be structurally checked for fixing details with the manufacturer as site location and wall exposure will be affected by wind loading.

The product is a closed cell structure and offers a compressive strength of 120kPa at 10% compression when tested to BS/I.S. EN 826: 1996. When used as an external render system, requirements may be required from the manufacturer of that system. However, Kingspan recommend in all cases that a bedding compound is applied prior to fixing the boards. A min. of 5 fixings are required to each board and corners should be fixed at 300mm centres. Fixings to board edges should also be placed between 50mm and 150mm from the edge. The fixings recommended are thermally broken telescopic fixings. When installed within a dry cladding system the same fixing details are recommended as per the render cover however the dry cladding system should be supported on min. 38mm x 38mm treated timber battens. The design and spacing of battens and fixings would be site location/exposure specific therefore reference needs to be made to the system manufacturer to ensure correct design and installation.

The product offers excellent moisture resistance however it is not to be exposed as a direct external finish and should always be placed under an external wall treatment such as render or other cladding system.

For Scotland purposes:

The specifications and materials referred to have been assessed in accordance with the Building (Scotland) Regulations 2004 and in accordance with the supporting guidance in the Domestic Technical Handbooks which came into force with effect from 1 October 2015.

Where reference is made on a plan or specification document to any Code of Practice, British or European Standard or manufacturer's instruction it shall be construed as a reference to such publication in the form in which it is in force at the date of this Registered Detail.

The materials specified shall be for purposes of this Registered Detail and should not be changed without first gaining approval so to do from Local Authority Building Standards Scotland [LABSS]. Failure to do so will invalidate the Registered Detail.

The Registered Detail shall be valid for a period of 12 months from the date of issue or until otherwise invalidated by formal notice by LABSS. The Registered Detail may be re-validated after 12 months following a request and payment of an annual renewal fee from the Registered Detail Holder.

This Registered Detail should not be regarded as a formal approval under the building warrant process prescribed by the Building (Scotland) Act 2003 enacted from 1 May 2005

This Registered Detail shall contribute to compliance with relevant Mandatory Standards specified under the Building (Scotland) Regulations 2004 as amended when read with the scope, conditions and regulations sections to this Registered Detail.

LABC consider that, Kingspan Kooltherm K5 Wall Board, will meet the functional requirements of the Building Regulations (listed below) if the criteria detailed in this certificate are met;



The Building Regulations 2010 (as amended) England & Wales

Regulation 7	Materials and workmanship
Note:	The product is acceptable.
AD A1	Loading
Note:	Subject to limitations detailed in the Conditions section.
AD B	Fire Safety
Note:	The product can contribute to meeting this requirement.
AD C2	Resistance to Moisture
Note:	Subject to limitations detailed in Conditions section.
AD L1A	Conservation of fuel and power
Note:	The thermal insulation performance of this system should be considered in the context of the contribution made to the overall performance of the wall.



The Building Regulations 2010 (as amended) England

AD L1A	Conservation of fuel and power
Note:	The thermal insulation performance of this system should be considered in the context of the contribution made to the overall performance of the wall.



The Building Regulations 2010 (as amended) Wales

AD L1A	Conservation of fuel and power
Note:	The thermal insulation performance of this system should be considered in the context of the contribution made to the overall performance of the wall.



The Building (Scotland) Regulations 2004 (as amended)

Technical Handbooks Domestic and Non-Domestic	
Regulation 8	Durability, workmanship and fitness of materials
0.8.5:	Ways of establishing the fitness of materials
Regulation 9	Building Standards applicable to construction
Note:	Construction shall be carried out so that the work complies with the applicable requirements of schedule 5.
Mandatory	
Standard 6.1(a)(b) Carbon Dioxide Emissions	
Note:	The thermal insulation performance of this product should be considered in the

	context of the contribution made to the overall performance of the building.
Mandatory	
Standard 6.2	Building Insulation Envelope
Note:	The thermal insulation performance of this product should be considered in the context of the contribution made to the overall performance of the building.

Non-Regulatory Information



LABC Warranty

The use of the Kingspan Kooltherm K5 Wall Board has not been assessed to meet the requirements of the LABC Warranty Technical Manual. If you would like to discuss a specific use please make an enquiry to technical.services@labcwarranty.co.uk

Supporting Documentation

Kingspan Data Sheet Issue 9 March 2011

Contact Information

Kingspan Insulation Ltd

Pembridge

Leominster

Herefordshire

HR6 9LA

Tel: 01544 388 601

Email: info@kingspaninsulation.co.uk

Web: www.kingspaninsulation.co.uk