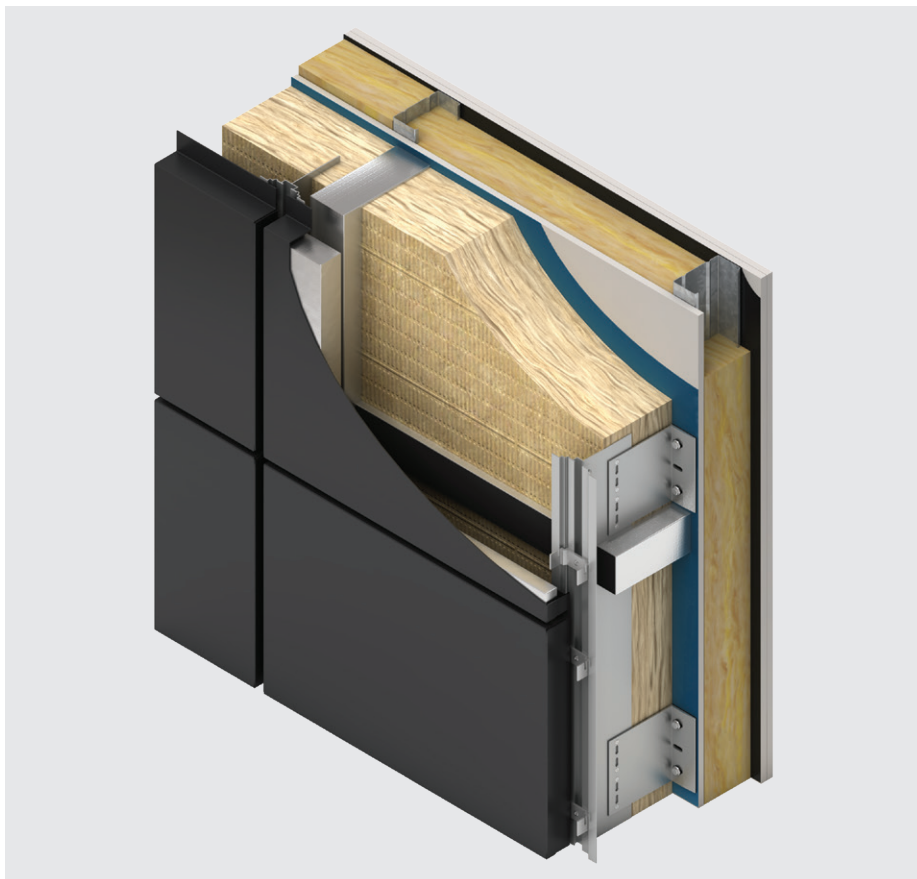


K-Roc® Framing Slab

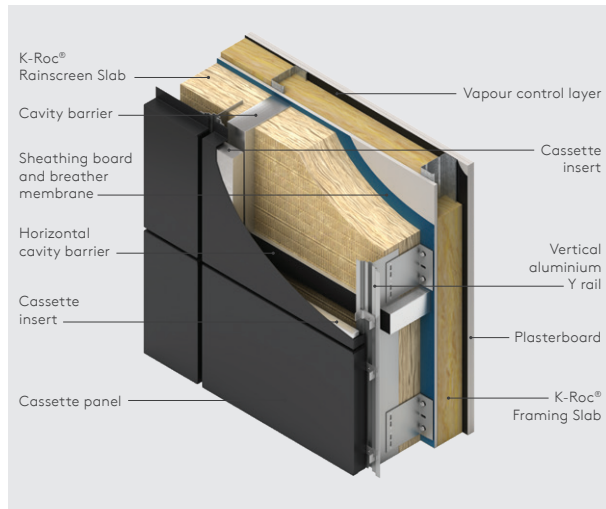
Insulation for steel frame systems



- Rock mineral fibre insulation with a thermal conductivity of 0.036 W/mK
- A1 Euroclass - acceptable for use in all buildings regardless of building type, height, construction and location
- 610 mm wide slabs fit neatly between studs at 600 mm centres

Product details

Typical construction



The product

K-Roc® Framing Slab is a rock mineral fibre insulation.

Standard dimensions

K-Roc® Framing Slab is available in the following standard size(s):

Nominal dimension	Availability
Length (m)	1.22
Width (m)	0.61
Insulant thickness (mm)	100, 150

Moisture properties

K-Roc® Framing Slab typically achieves a water vapour resistivity of 5 MNs/gm and a water vapour diffusion resistance factor of 1 MU, μ in accordance with BS EN 12086: 2013 (Thermal insulating products for building applications. Determination of water vapour transmission properties).

K-Roc® Framing Slab typically achieves a water absorption (short term) of $\leq 1 \text{ kg/m}^2$ when tested to BS EN ISO 29767: 2019 (Thermal insulating products for building applications. Determination of short term water absorption by partial immersion).

K-Roc® Framing Slab typically achieves a water absorption (long term) of $\leq 3 \text{ kg/m}^2$ when tested to EN 12087: 2013 (Thermal insulating products for building applications. Determination of long term water absorption by immersion).

Density

K-Roc® Framing Slab has a density of 28 - 32 kg/m³.

Thermal properties

The λ -values and R-values detailed below are quoted in accordance with BS EN 13162: 2012 + A1: 2015 (Thermal insulating products for buildings. Factory made mineral wool (MW) products. Specification).

Thermal conductivity

The slabs achieve a thermal conductivity (λ -value) of: 0.036 W/mK.

Thermal resistance

Thermal resistance (R-value) varies with thickness and is calculated by dividing the thickness of the slab (expressed in metres) by its thermal conductivity. The resulting number is rounded down to the nearest 0.05 (m²K/W).

Insulant thickness (mm)	Thermal resistance (m ² K/W)
100	2.75
150	4.15

NB The thermal performance of rock mineral fibre products is declared in accordance with EN 13162: 2012 + A1: 2015, as required by the EU Construction Product Regulations. EN 13162: 2012 + A1: 2015 does not provide for any assessment of the degradation of thermal performance over time. As such, it is not possible to guarantee that the declared thermal performance of mineral wool will be valid for the lifetime of the product's use.

U-values

Rainscreen façade systems are proprietary, resulting in a wide variation of possible system build-ups, material combinations and mechanisms that are used to fix and support the external cladding to the wall structure. It is advised that the Kingspan Insulation Technical Service Department is contacted for specific U-value calculations (see rear cover for details).

Design considerations

Responsible sourcing

K-Roc® Framing Slab is certified to BES 6001 (Framework Standard for the Responsible Sourcing of Construction Products) 'Pass'. K-Roc® Framing Slab is manufactured under a management system certified to ISO 14001: 2015 (Environmental management systems).

NB The above information is correct at the time of writing. Please contact the Kingspan Insulation Technical Service team (see rear cover for details) for copies of certificates.

Specification clause

K-Roc® Framing Slab should be described in specifications as: The wall insulation shall be K-Roc® Framing Slab _____ mm thick: comprising a rock mineral fibre insulation. The product shall be manufactured under a management system certified to ISO 9001: 2015 and ISO 14001: 2015.

Product classifications

Uniclass UK

Pr_25_57_06_50 Mineral fibre slab insulation

CAWS

H92/776 Thermal insulation

Details also available at the [NBS Source](#).

Fire stops & cavity barrier strategy

Current guidance to the Building Regulations should be considered with regard to the performance requirements for, and the provision of fire stops and cavity barriers.

Reference should also be made to 'Structural Timber Buildings Fire Safety in Use Guidance Volume 2 - Cavity Barriers and Fire Stopping' by the Structural Timber Association.

Fire safety

For guidance regarding the routes to compliance for meeting the fire safety requirements of the Building Regulations / Standards, refer to the relevant Technical Bulletins and links to Government websites at www.kingspaninsulation.co.uk/fireregulations (for GB) or contact technical services at technical@kingspaninsulation.ie (for Ireland).

Fire performance

Under System 1 AVCP, K-Roc® Framing Slab achieves European Classification (Euroclass) A1 when classified to EN 13501-1: 2018 (Fire classification of construction products and building elements - Classification using data from reaction to fire tests). The UK Certificate of Constancy of Performance (certificate number 0836-CPR-22/P6091) and EU Certificate of Constancy of Performance (certificate number 0809-CPR-19000635) are available to download on the [website](#).

K-Roc® Framing Slab (used in conjunction with K-Roc® Rainscreen Slab) in the constructions specified in the following table, when subjected to BS EN 1364-1: 2015 (Fire resistance tests for non-loadbearing elements - Walls) achieved the results shown.

Test	BS EN 1364-1: 2015	
Build-up	1*	2**
Report no.	EUI-21-B-000335-A - Revision 1	EUI-21-B-000335-B
Issue date	21 April 2022	21 April 2022
Direction	Inside to outside	Outside to inside
Integrity (mins.)	112	132

When classified under BS EN 13501-2: 2016 (Fire classification of construction products and buildings elements - Classification using data from fire resistance tests, excluding ventilation services), K-Roc® Framing Slab (used in conjunction with K-Roc® Rainscreen Slab), in the constructions specified below, has achieved the fire classifications shown.

Classification	BS EN 13501-2: 2016	
Build-up	1*	2**
Report no.	EUI-21-000335	
Issue date	9 May 2022	
Direction	Inside to outside	Outside to inside
Integrity (mins.)	EI 90	EI 120

* Build-up 1 - 2 x 15 mm layers of Fireline plasterboard, VCL, 100 mm **K-Roc® Framing Slab** between metal studs @600tc (Kingspan Steel Framing System), 12 mm Y-wall sheathing board, Kingspan nilvent® and 100 mm **K-Roc® Rainscreen Slab**.

** Build-up 2 - 100 mm **K-Roc® Rainscreen Slab**, Kingspan nilvent®, 12 mm Y-wall sheathing board, 100 mm **K-Roc® Framing Slab** between metal studs @600tc (Kingspan Steel Framing System), VCL and 2 x 15 mm layers of Fireline plasterboard.

Design considerations

General

Cutting

- The use of dust masks is recommended, in accordance with CDM Guidelines, to prevent inhalation in the event loose fibres become airborne during the process of cutting.
- Cutting should be carried out using a hard steel bladed saw.
- Ensure accurate trimming to achieve close butting joints and continuity of insulation.

Daily working practice

- At the completion of each day's work, or whenever work is interrupted for extended periods of time, slab edges and joints should be protected from inclement weather.

Availability

- K-Roc® Framing Slab is available through specialist insulation distributors and selected builders' merchants throughout Great Britain and Ireland.

Packaging & storage

- The polyethylene packaging of Kingspan Insulation products, which is recyclable, should not be considered adequate for outdoor protection.
- Ideally, slabs should be stored inside a building. If, however, outside storage cannot be avoided, then the slabs should be stacked clear of the ground and covered with an opaque polythene sheet or weatherproof tarpaulin. Slabs that have been allowed to get wet should not be used.

About Kingspan Insulation

Company details

Kingspan Insulation Ltd is part of the Kingspan Group plc., one of Europe's leading construction product manufacturers. The Kingspan Group was formed in the late 1960s and is a publicly quoted group of companies headquartered in Kingscourt, County Cavan, Ireland.

Kingspan Insulation Ltd is a leading manufacturer of premium and high performance rigid insulation products and insulated systems for building fabric and building services applications.

Products & solutions

Optimum, premium and high performance rigid insulation products for building fabric applications, including roofs, walls and floors.

- Kingspan AlphaCore™ - premium performance microporous silica insulation.
- Kingspan OPTIM-R® - optimum performance vacuum insulation panel (VIP) systems.
- Kingspan Kooltherm® - premium performance phenolic insulation.
- Kingspan Therma™ - high performance PIR insulation.
- K-Roc® - rock mineral fibre insulation.
- Kingspan GreenGuard® - extruded polystyrene insulation (XPS).
- Kingspan TEK® - structural insulated panels (SIPs).
- Cavity closers - PVC-U extrusions with an insulation core.
- Membranes - for pitched roofs and walls.

Services

We are proud to offer one of the most advanced support services in the construction industry, designed to give fast and accurate advice no matter what your role is. Visit our website to access the following services.

- U-value calculations - free, quick and easy U-value calculations with our U-value Calculator.
- Help and advice on your projects, including stockists, how to guides, regulatory guidance and e-learning.
- Building Information Modelling (BIM) - download BIM objects for our products.
- Tapered roofing service - Kingspan Insulation's tapered roofing systems come with a supporting design service to ensure the most cost-effective solution for a roof is identified.
- CPDs - Kingspan Insulation offer a number of free CPD seminars for architects and specifiers covering a wide range of industry topics. CPDs can be booked or a range of online learning courses can be found online.

Planet Passionate

Planet Passionate, our 10-year group wide global sustainability programme, aims to have a positive impact on three big global challenges: climate change, circularity and protection of our natural world.

The Planet Passionate programme is made up of 12 ambitious targets, addressing the impact of Kingspan's business operations and manufacturing on the four key areas of energy, carbon, circularity and water, with commitments by 2030 to include:

- energy: powering 60% of all Kingspan operations directly from renewable energy with a minimum of 20% of this energy generated on manufacturing sites;
- carbon: achieving net zero carbon manufacturing and a 50% reduction in product CO₂ intensity from primary supply partners;
- circularity: upcycling of 1 billion PET bottles per annum into our manufacturing processes plus zero company waste to landfill across all sites; and
- water: harvesting 100 million litres of rainwater annually on our sites.

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