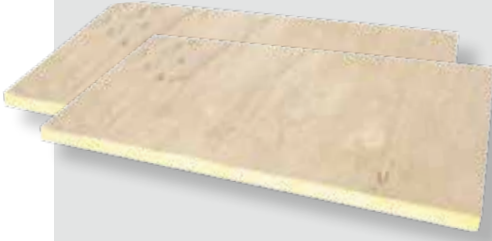


# Thermal Insulating Materials

There are various types of insulation available and to choose the proper type for a particular building it is necessary to determine where the insulation will be installed and what are the recommended R-values for that specific area. Other aspects relevant to the insulation material choice include ease of installation, indoor air quality, durability, recycled content or embodied energy. The recommendations are to use the thermal insulation that has a little impact on the environment, great thermal properties and has been responsibly sourced.



## KINGSPAN KOOLTHERM K5 External Wall Board

It is high performance external wall board with a fibre-free rigid thermoset phenolic core used for external insulation on masonry walls behind traditional and lightweight polymer modified renders and dry cladding systems.

- Premium performance rigid thermoset insulation – thermal conductivities as low as 0.020 W/m.K

- Class 0 fire rating
- Class 0 fire rated insulation core G Negligible smoke obscuration
- Suitable for use behind traditional and lightweight polymer modified renders and dry cladding systems
- Unaffected by air infiltration G Resistant to the passage of
- water vapour
- Easy to handle and install
- Ideal for new build and refurbishment
- Non deleterious material

- Manufactured with a blowing agent that has zero ODP and low GWP

If correctly installed, KingspanKooltherm® K5 can have an indefinite life. Its durability depends on the supporting structure and the conditions of its use.

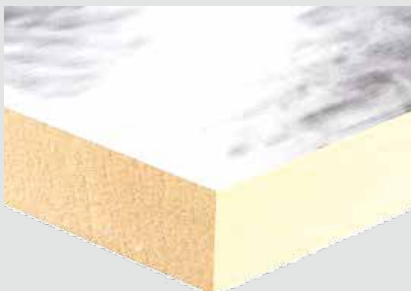
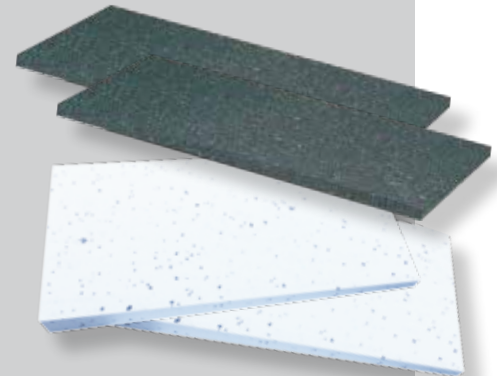
It is used for insulated render system, ventilated cladding system, for solid brick walls, solid blockwork walls, brick or dense block cavity walls insulation.

## POLYSTYRENE PANELS EPS

Expanded Polystyrene (EPS) panels is the expanded polymer insulation with the appearance of a white or grey foam material.

- Lightweight, strong, clean and easy to handle
- Low thermal conductivity
- High strength-to-weight ratio
- Provide insulation from temperature and noise
- Used as a base for rendered panels

- Various applications both residential and commercial
- Perfect for insulating ceilings, under-slabs, walls, roofs, bathrooms, steel studs, timber studs, and concrete and masonry constructions.
- Available in a range of thicknesses from 10mm to 600mm
- Standard sheet sizes



## PIR INSULATION BOARD

Polyisocyanurate was invented in the 1930s and still offers the high performance insulation solution. It is a thermoset plastic rigid thermal insulation. The rigid PIR insulation core is pressed between two high performance layers to create a tough, durable, light weight insulation board.

Applications include built up flat roofs, concrete slab floors, single timber frame wall lining, balconies and terraces, pitched roofs.

- Achieve low Lambda values - great thermal performance
- Lightweight
- Durable
- Resilient to mould and microbial growth
- Non-irritant
- Easy to cut and install

## GLASS MINERAL WOOL ROLL



It is made of fibres of glass minded into a material similar to wool what creates the air gaps in its texture and results in thermal insulation properties.

Also available in rolls.

- Wide variety of applications
- Easy to install
- Flexible and lightweight
- Hight tear strength

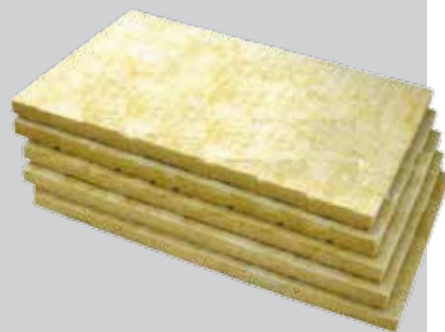
- Provides thermal and acoustic performance
- Rot-proof, odourless, non-hygroscopic
- Resilient to the growth of fungi, mould or bacteria
- It is chemically neutral and does not contain impurities

## EARTHWOOL DRI THERM CAVITY SLAB

These are semi-rigid or rigid slabs of non-combustible, water repellent, glass mineral wool. They are 455mm wide to suit standard vertical wall tie spacings, ensuring a closed joint with adjacent slabs.

Used for the thermal insulation of masonry cavity external walls and are installed to fully fill the cavity. They are approved for use in buildings up to 12m high in any exposure zone and multi-storey applications up to 25m in height.

- Odourless, rot proof, non-hygroscopic, do not sustain vermin and will not encourage the growth of fungi, mould or bacteria
- Moisture resistant
- Contains no dye or artificial products



## ROCKWOOL PROROX SLAB RWA45



It is a high-quality resin bonded slab, strong and flexible wool board for the thermal insulation. Specialist sizes and thicknesses are available to order. Insulation slabs provide excellent thermal, acoustic and fire insulation. RWA45 is also known as ProRox SL 920 UK. Rockwool Prorox is often used as the acoustic insulation in floor and ceiling voids or stud and party walls.

- Provides thermal, acoustic and fire insulation

- Water repellent
- Easy to install
- Cost effective
- Durable
- Available in dimensions 600mm x 1200mm (1000mm for faced slabs)
- Available in thicknesses 100mm
- Four slabs per pack
- Pack coverage: 2.88m<sup>2</sup>
- Thermal conductivity: 0.035 W/mK

	Kingspan Kooltherm K5	Polystyrene Panels EPS	PIR board	Glass Wool Roll	Earthwool Dri Therm Cavity slab	Rockwool Prorox slab RWA45
Cavity Walls	✓		✓		✓	✓
External Insulation	✓	✓				
Internal Insulation	✓	✓	✓	✓	✓	✓
Between roof rafters			✓	✓	✓	✓
Concrete Floor		✓	✓			
Between timber floor joists	✓		✓	✓	✓	✓
Partition Walls				✓	✓	✓
Foundation		✓	✓			
Ceiling				✓	✓	✓
Acoustic insulation	✓			✓	✓	✓