



March 2010

Earthwool® Thermal Floor Slab and Earthwool Thermal Floor Slab Plus

For floors

Description

Earthwool Thermal Floor Slab is a dense, rigid, compression resistant, rock mineral wool slab specifically manufactured for the thermal insulation of concrete ground floors. Earthwool Thermal Floor Slab Plus has higher compression resistance than Earthwool Thermal Floor Slab. Both products contain a water repellent additive.

Application

Earthwool Thermal Floor Slabs are for the thermal insulation of concrete ground floors. Both products can be placed:

- Above a concrete floor to support either flooring grade chipboard or a screed
- On a damp proof membrane (dpm) and sand blinding, below a concrete ground bearing slab

Performance

Thermal

Earthwool Thermal Floor Slab has a thermal conductivity of 0.035W/mK. Earthwool Thermal Floor Slab Plus has a thermal conductivity of 0.038W/mK.

Fire

Earthwool Thermal Floor Slabs are classified as Euroclass A1 to BS EN ISO 13501-1.

Benefits

- High compressive strength
- Excellent thermal performance
- Easy handling and fitting

Earthwool® Thermal Floor Slabs

Standards

Earthwool Thermal Floor Slabs are made from non-combustible inorganic rock mineral wool, defined as mineral wool in BS 3533:1981 and are manufactured to a Quality Assurance system which complies with BS EN ISO 9001:2000 and Product Standard EN 13162.

Durability

Earthwool Thermal Floor Slabs are odourless, rot proof, non-hygroscopic, do not sustain vermin and will not encourage the growth of fungi, mould or bacteria.

Moisture resistance

Earthwool Thermal Floor Slabs are non-wicking when tested in accordance with BS 2972:1989 Section 12. When exposed to 90% relative humidity at 20°C, Earthwool Thermal Floor Slabs absorb less than 0.004% of moisture. Earthwool Thermal Floor Slabs are water resistant but require a damp proof membrane (dpm) to protect against ground moisture. A separating layer is often required in screeded applications.

Vapour resistance - resistivity

Earthwool Thermal Floor Slabs offer negligible resistance to the passage of water vapour and have a vapour resistivity of 7.00MN/g.m.

Environmental

Earthwool Thermal Floor Slabs are free from CFCs, HCFCs and any other material with ozone depletion potential in their manufacture and content and represent no known threat to the environment. **Their manufacture has a low impact on the environment and is classified as Zero ODP and Zero GWP.**

Handling and storage

Earthwool Thermal Floor Slabs are easy to handle and install, being lightweight and easily cut to size, where necessary. Earthwool Thermal Floor Slabs are supplied in polythene packs which are designed for short term protection only. For longer term protection on site, the product should either be stored indoors, or under cover and off the ground. Earthwool Thermal Floor Slabs should not be left permanently exposed to the elements.

| Thickness (mm) | Thermal conductivity (W/mK) | Thermal resistance (m ² K/W) | Length (mm) | Width (mm) | Slabs per pack | Area per pack (m ²) |
|--|--------------------------------|--|----------------|---------------|----------------|------------------------------------|
| Earthwool Thermal Floor Slab | | | | | | |
| 25 | 0.035 | 0.70 | 900 | 600 | 12 | 6.48 |
| Earthwool Thermal Floor Slab Plus | | | | | | |
| 100 | 0.038 | 2.60 | 900 | 600 | 2 | 1.08 |
| 90 | 0.038 | 2.35 | 900 | 600 | 3 | 1.62 |
| 80 | 0.038 | 2.10 | 900 | 600 | 3 | 1.62 |
| 70 | 0.038 | 1.80 | 900 | 600 | 4 | 2.16 |
| 60 | 0.038 | 1.55 | 900 | 600 | 4 | 2.16 |

All dimensions are nominal

Ref: ED132510

Knauf Insulation mineral wool products with ECOSE® Technology benefit from a formaldehyde-free binder made from rapidly renewable bio-based materials instead of petroleum-based chemicals which is up to 70% less energy intensive. The technology has been developed for Knauf Insulation's glass and rock mineral wool products, enhancing their environmental credentials without affecting the thermal, acoustic or fire performance. Insulation products made with ECOSE® Technology contain no dye or artificial colours – the colour is completely natural.

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