



October 2010

Earthwool® Duct Slab

For ducts

Description

Earthwool Duct Slab is manufactured from non-combustible, inorganic rock mineral wool to provide a robust slab of 45kg/m³ nominal density with high thermal efficiency. It is supplied with a factory applied Bright Class 'O' reinforced aluminium foil facing.

Application

Earthwool Duct Slab is used for the thermal insulation of square and rectangular ductwork and equipment operating at a temperature up to 850°C.

Thickness (mm)	Thermal conductivity (W/mK)	Thermal resistance (m ² K/W)	Length (mm)	Width (mm)	Slabs per pack	Area per pack (m ²)
50	0.033	1.50	1200	600	8	5.76
40	0.033	1.20	1200	600	8	5.76

All dimensions are nominal

Performance

Thermal

Earthwool Duct Slab has a thermal conductivity of 0.033W/mK at 10°C.

Acoustic

In combination with a suitable cladding material, it provides an excellent basis for reducing noise breakout from ductwork and equipment.

Fire

Earthwool Duct Slab is classified as non-combustible to BS 476:Part 4:1970 (1984), Class 1 Surface Spread of Flame to BS 476:Part 7:1997 and Class 'O' to the Building Regulations.

Benefits

- Excellent thermal and acoustic properties
- Non-combustible
- Easy to cut, handle and install

Earthwool® Duct Slab

Standards

Earthwool Duct Slab is made from non-combustible, inorganic rock mineral wool, defined as mineral wool in BS 3533:1981. It meets the requirements of BS 5422 and BS 5970 and is manufactured to a Quality Assurance system which complies with BS EN ISO 9001:2000.

Thermal performance

The thermal conductivity of Earthwool Duct Slab varies with temperature as shown in the table below.

Acoustic performance

Earthwool Duct Slabs lightweight, fire safe and robust nature combined with excellent sound absorption characteristics make it an ideal choice for sound attenuation applications.

Operating temperatures

Earthwool Duct Slab can be used up to continuous operating temperatures of 850°C and down to cryogenic temperatures provided that a 100% vapour barrier is maintained to prevent ingress of moisture vapour. The surface temperature of the aluminium foil facing should not exceed 80°C.

Durability

Earthwool Duct Slab is odourless, rot proof, non-hygroscopic, does not sustain vermin and will not encourage the growth of fungi, mould or bacteria.

Environmental

Earthwool Duct Slab is free from CFCs, HCFCs and any other material with ozone depletion potential in its manufacture and content and represents no known threat to the environment.

Earthwool Duct Slab's manufacture has a low impact on the environment and is classified as Zero ODP and Zero GWP.

Handling and storage

Earthwool Duct Slab is easy to handle and install, being lightweight and easily cut to size, where necessary. Earthwool Duct Slab is 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 Duct Slab should not be left permanently exposed to the elements.

Mean temperature (°C)	Thermal conductivity (W/mK)
10	0.033
25	0.035
50	0.038
75	0.044
100	0.049
125	0.055

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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