ISOVER Sponsor of building Sustainable Housebuilder of the Year Award

Hi-Therm

Foil-faced glass mineral wool slabs for partial-fill insulation of masonry cavity walls to meet the thermal requirements of Part L 2006 (England and Wales) and Section 6 (Scotland).

Description

Non-combustible, silicone-impregnated, water repellent glass mineral wool slabs, faced on one side with a vapour permeable low emissivity reinforced foil. The product is supplied in a variety of thicknesses, with a 1200mm x 455mm dimension, compatible with conventional wall tie spacing.

The slabs are installed between the wall ties with the foil facing adjacent to the residual cavity and with the reverse fibrous side against the inner leaf.

Standards

BSI REGISTERED UKAS QUALITY MANAGEMENT 003

Certificate number: FM 01032

Quality Assurance Standard

ISOVER Hi-Therm is manufactured under a BSI Quality Assurance Scheme in accordance with BS EN ISO 9002:1994.

BBA BRITISH BOARD OF AGREMENT CERTIFICATE No. 90/2465

BBA Certification

ISOVER Hi-Therm is recognised by the British Board of Agrément as a suitable product for use as partial-fill insulation for masonry wall applications.

Benefits

- Fully water repellent.
- Durable – not easily damaged in storage, during transport or on site when installing.
- Less waste compared with closed-cell foam plastic insulation boards.
- Does not hinder the natural drying out process of the building.
- Long installed life – will tolerate structural movement and settlement. Will not age.
- Fire safe – made from non-combustible mineral wool.
- Suitable for all exposure zones.
- Can be used in high-rise buildings.

Ecological Information

ISOVER Hi-Therm is made from glass mineral wool, one of the most environmentally friendly materials available.

Sustainable

ISOVER Hi-Therm is manufactured from silica sand, the earth's most abundantly occurring mineral and a sustainable, infinite resource.

Recyclable

Approximately 80% of the raw material used in the production of **ISOVER Hi-Therm** is recycled, far more than any comparable product. The recycled material can be post-consumer glass (from housing generation projects) or waste glass from bottle and flat glass manufacture, which would otherwise go to landfill.

Environmental

The manufacturing process does not use or contain CFC's, HCFC's or other damaging gases - nor has it ever. In addition, the unique resilience of ISOVER glass mineral wool enables high compression packing which means more insulation in a smaller space than almost any other insulant. The result is better vehicle utilisation, reducing the environmental impact of transportation.

EcoHomes/Sustainable Homes

ISOVER Hi-Therm achieves full credit under BRE EcoHomes performance for zero Ozone Depletion Potential (ODP) and a Global Warming Potential (GWP) of less than 5.

Fire Performance

ISOVER Hi-Therm achieves a Euroclass A1 fire rating when classified in accordance with BS EN 13501-1.

Building Regulations Compliance

England and Wales - Part L 2006

New build properties: The required wall U-value will be decided by the designer based on a whole-building 'SAP 2005' computer assessment of carbon emissions. The U-value can vary depending upon several factors, including air leakage rate and heating fuel type.

Extension work to existing buildings: There are specified U-values for newly constructed elements in an extension.

Scotland - Section 6

There are three methods of demonstrating compliance, of which the Elemental Method, with stipulated U-values for roof, wall and floor elements, is the simplest. This method is also suitable for extensions.

	England and Wales		Scotland
Element	ISOVER recommended U-values for new buildings (W/m²K)	Actual U-values for extensions (W/m²K)	U-values (W/m²K) Central heating with SEDBUK value*
Walls	0.30 to 0.25	0.30	0.30

*Table 2, boiler performance standards, section 6.

Thermal Performance & U-values

U-values based on masonry cavity wall consisting of a 102.5mm brick outer leaf and 100mm concrete block inner leaf. Calculations shown for 12.5mm Gyproc WallBoard on dabs internal finish.

Hi-Therm batts positioned in the cavity, maintaining a minimum 25mm cavity air space. Calculated to the combined method of BS EN ISO 6946.

Foil Facing

Water vapour permeance 1.5 g/(s.MN) at 50% RH, 23°C.

	Block Type			
	Typical Aircrete		Typical 7N	Dense Concrete
U-Value (W/m²K)	100mm λ=0.11	100mm λ=0.15	100mm λ=0.51	100mm λ=1.13
	Thickness of ISOVER Hi-Therm to achieve U-value			
0.30	50mm	50mm	75mm*	-
0.29	50mm	-	-	-

*Thickness to achieve U-value within 100mm design cavity maintaining a 25mm clear cavity. A 50mm clear cavity may be required in residential constructions.

Packaging and Physical Dimensions

Thickness (mm)	Width (mm)	Length (mm)	Pack area (m²)	Batts per pack
25	455	1200	9.83	18
55	455	1200	4.91	9
65	455	1200	3.82	7
75*	455	1200	3.28	6

*75mm ISOVER Hi-Therm may be subject to extended lead time and minimum order quantities.

Low emissivity facing on one side.

ISOVER Hi-Therm is manufactured in slab form in a single thickness. The slabs are compression packed in individual packs using a strong polythene packaging film. The packs are then stacked on wooden pallets with final weatherproof outer covering, giving the option of outside storage.

Construction Guidance

Hi-Therm batts should be installed in accordance with the guidelines contained in BBA Certificate 90/2465 (Detail Sheet 6), which can be downloaded from the British Gypsum-Isover website **www.isover.co.uk** or BBA website **www.bbacerts.co.uk**

Technical Support: **0115 945 1143** or E-mail **isover.enquiries@saint-gobain.com**

General Enquiries: British Gypsum-Isover, East Leake, Loughborough, Leicestershire LE12 6JU Tel: 0115 945 1050 Fax: 0115 945 1915

SAINT-GOBAIN
ISOVER UK