CWS

Silicone impregnated glass mineral wool slabs providing thermal insulation in masonry cavity walls in full-fill applications.

Description

ISOVER CWS is designed to be installed during construction in the cavity between two masonry leaves in external walls.

The product is a non-combustible, silicone-impregnated glass mineral wool slab, supplied in a variety of thicknesses, in 1200mm x 455mm dimension compatible with conventional wall tie spacing.

ISOVER CWS is composed of high quality glass wool, which is bonded with a synthetic, thermo-setting resin, silicone impregnated, to form a strong yet resilient insulating slab, which is easy to handle, cut and install.

Benefits

- Over 25 years usage with no recorded failures by the BBA.
- BBA Certified for all exposure zones.
- Can be used in multi-storey construction.
- Completely fire safe – Euroclass A1 fire rating.
- Long product life – will not age.
- Long installed life – will tolerate structural movement and settlement.
- Robust – fibrous faces will follow wall contours leaving no airspaces and edges of adjacent slabs will 'knit', leaving no penetrating air gaps.
- Does not hinder the natural drying out process of the building.

Standards

BBA Certificate 90/2465 endorses the use of ISOVER CWS for use in all exposure zones for buildings up to and including 25m in height.

ISOVER CWS is manufactured under BSI Quality Management Standard BS EN ISO 9001:2000.

Certificate number: FM 01032

Ecological Information

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

Sustainable

ISOVER CWS 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 CWS is recycled, far more than any comparable product. The recycled material can be post-consumer glass (from housing generation projects) or waste glass from 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 CWS achieves full credit under BRE EcoHomes performance for zero Ozone Depletion Potential (ODP) and a Global Warming Potential (GWP) of less than 5.

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 two methods of demonstrating compliance, of which the Elemental Method, with stipulated U-values for roof, wall and floor elements, is the simplest. For extensions, there is a prescribed U value.

	England and Wales		Scotland	
Element	ISOVER recommended U-values for new buildings (W/m²K)	Actual U-value for extensions (W/m²K)	U-value (W/m²K) for new buildings*	Actual U-value for extensions
Walls	0.30 to 0.25	0.30	0.25	0.27

*If solid fuel heating the U value is 0.30

Thermal Performance and U-Values

A cavity wall of brick outer leaf and a 100mm concrete block inner leaf finished internally with 12.5mm Gyproc WallBoard on dabs, and with ISOVER CWS insulation batts completely filling the wall cavity. U-value calculation assumes 6.7% mortar fraction. Calculated to the combined method of BS EN ISO 6946.

The thermal conductivity (Lambda value) of ISOVER CWS is 0.036 W/mK.

	Block Type				
	Typical Aircrete			Typical 7N	Dense Concrete
U-Value (W/m²K)	115mm λ=0.11	100mm λ=0.11	100mm λ=0.15	100mm λ=0.51	100mm λ=1.13
	Thickness of ISOVER CWS to achieve U-value				
0.30	75mm	75mm	85mm	100mm	-
0.29	75mm	85mm	85mm	-	-
0.28	85mm	85mm	100mm	-	-
0.27	85mm	100mm	100mm	-	-
0.26	-	100mm	-	-	-

Other Performance Characteristics

Acoustic Performance

ISOVER CWS helps to minimise the transfer of flanking sound transmission along wall cavities. Walls incorporating ISOVER CWS batts will therefore constitute an effective design to help meet acoustic Building Regulations requirements.

Fire Performance

Euroclass A1 fire rating when classified in accordance with BS EN 13501-1.

When used as a full cavity fill, ISOVER CWS constitutes a cavity fire barrier.

Installation Guidelines

ISOVER CWS should be installed in accordance with the guidelines contained in BBA Certificate 90/2465 (Detail sheets 4 & 5), which can be downloaded from the Isover website www.isover.co.uk or BBA website www.bbacerts.com.

Packaging and Physical Dimensions

R-value	Thickness (mm)	Width (mm)	Length (mm)	Pack area (m²)	Batts per pack
2.08	75	455	1200	8.74	16
2.36	85	455	1200	6.55	12
2.78	100	455	1200	6.55	12
3.47	125	455	1200	4.37	8

Other sizes may be available subject to enquiry.

1st for Palletisation

ISOVER CWS is manufactured in slab form. 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.

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