

Black Mountain Natural Hemp Insulation

Technical data



■ Natural Hemp Insulation



■ Product Description

Black Mountain Hemp insulation is a general purpose natural fibre insulation product. Manufactured from a blend of hemp and other natural fibre, incorporating a binder to ensure the product retains its thickness.

It has exceptional insulation properties due to a combination of low thermal conductivity and high thermal mass – reducing internal temperature fluctuations and enhancing thermal comfort.

Due to the strength of the fibre the product has good resistance to compression and is a semi rigid structure which resists slumping and compaction.

The product has been designed to match and surpass the Part L Building Standards with reference to Thermal, Fire, Mould Resistance and Structural performance.

■ Applications

Due to its strength and rigidity, Black Mountain Hemp insulation is ideally suited for use in renovation of older properties and new build timber frame constructions, warm lofts, internal walls and inter-floor applications.

Hemp insulation is not only breathable but also able to absorb, retain and release moisture without affecting its thermal properties or performance, thus increasing human comfort and reducing condensation risks. Black Mountain Hemp insulation is ideal for breathable wall construction.

■ Environmental Information

The manufacturing process at Black Mountain insulation factory is one of the most modern in Europe, it requires very little energy, 90% less than some other products.

Hemp fibres are one of the strongest natural fibres available, the durability and moisture control properties of hemp insulation allows for a higher level of performance and longevity – retaining its insulating properties for the life of the building.

Hemp is not attacked by vermin or other pests.

The Hemp fibre selected by Black Mountain is grown without the use of pesticides or herbicides. It does not require forced irrigation in its cultivation and yields a significant tonnage of fibre per acre.

■ Fire Standards

The fibres used in the production of Black Mountain Hemp insulation are treated with a simple compound to achieve Euroclass E fire performance. Black Mountain Hemp insulation conforms to the fire performance requirements of the building regulations.

All of our products are tested to:

Building Regulations Part L BS:5803-4

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■ Thermal Performance

Black Mountain Hemp insulation matches the following standards for loft, rafter and internal wall thermal requirements as follows:

England / Wales Approved Document L1, L2 – Table 1

Scotland Technical Standard Table J23

N. Ireland Technical Booklet F – Table 1.2 / 1.4

■ Performance and Technical Standards

Fire	Euro Class E
Condensation	BS 5250: 1989
Thermal Conductivity λ	0.04 W/m ² K
Thermal Resistance R	2.50 m ² °K/W
Specific Heat Capacity c	1700 J/kg°K
Vapour resistivity r	10 MNs/gm
U Value (100mm)	0.4
Density	30kg/m ³

■ Sizes - Special Widths Available

Black Mountain is the only dedicated manufacturer of natural insulation in the UK and is unique in its ability to manufacture special widths and thicknesses.

Older properties very rarely have 400mm or 600mm rafter centres, Black Mountain can produce special widths, which reduces wastage and fitting time thus reducing total cost, often achieving a lower installed cost than man-made insulation.

Minimum order quantities apply to special widths please contact Black Mountain for details and lead times.

Black Mountain Hemp insulation is available in batt format both at the 380mm and 580mm widths.

■ Sizes available

Widths - 380mm, 580mm - others to special order

Batts	pcs per pack	380mm	580mm
50mm	12 pieces	5.47m ²	8.35m ²
75mm	8 pieces	3.65m ²	5.57m ²
100mm	6 pieces	2.74m ²	4.18m ²

All batts are 1.2mtr length

■ Installation

Installation of Black Mountain Hemp Insulation is very easy, it is designed to be a friction fit between rafters, thus the batts will remain in place even when installed over head until retained in place. When cutting, please cut oversize by 10mm to maintain the friction fit.

The material can be cut using a long scalloped insulation knife or an electric saw fitted with a Bosch blade (GFZA 14-35).

