

# TECHNICAL SHEET

For more information on NatuHemp, please contact our sales team

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## Product Description

PHYSICAL PROPERTIES	
Function	Natural fibre thermal insulator
Content	95% natural hemp fibres 5% combination recycled adhesive binder
Origin	Waste straw from hemp seed harvest
Structure	Flexible, semi-rigid and durable
Application	Easy to handle and quick to install

### Dimensions

Batts are recommended for use in warm loft application, partitioning wall space and timber frames to avoid potential movement by providing an exact fit. Hemp insulation is also an excellent product for both warm and cold loft spaces. Batts are easy to apply in cramped crawl spaces and are designed to give an exact fit between joists and rafters. The high density of hemp insulation not only provides excellent thermal benefits but also some acoustic properties making it ideal for use in suspended timber floor space.

For the latest pack and pallet quantities, please contact Black Mountain sales@blackmountaininsulation.com.

### Environment

- Black Mountain only use approximately 10% of the energy required to manufacture some competing man-made mineral fibre insulation products.
- The product will remain efficient throughout the life of a typical building, eliminating any 'top up' cost requirements.
- Hemp is fast growing and needs minimal water and maintenance to grow. This is an important consideration for many areas where water shortages occur regularly.
- The organic plant fibres used in Black Mountain hemp insulation are derived from 'waste' straw left at the end of a hemp seed harvest.
- During its growth stage, hemp will lock away up to two tonnes of CO<sub>2</sub> per tonne of fibre harvested.

## Technical Performance

TECHNICAL STANDARDS	
Fire	Euro Class E EN 13501-1:2002
Condensation	BS 5250:1989
Thermal conductivity (λ)	0.039 W/mK
Specific heat capacity (c)	1700 J/kg <sup>2</sup> K
Vapour resistivity (r)	10 MNs/gm
Moisture absorption	20% w/w
Density	30kg /m <sup>3</sup>
ODP (Ozone depletion potential)	Zero
GWP (Global warming potential)	Zero

### Thermal efficiency

Black Mountain hemp insulation is exceptional natural insulator and offers a thermal conductivity of 0.039 W/mK.

### Moisture absorbency

Hemp insulation is a hygroscopic material and is able to absorb, store and release over 20% of its weight in moisture without effecting product performance.

### Durability

Hemp insulation has a unique tensile strength that makes it more durable and resilient than many competing products.

### Flame resistant

Achieving a Euro Class E fire performance rating, hemp insulation is classified as fire resistant.

THERMAL PERFORMANCE		
Thickness	Thermal Resistance (R)	U Value
50mm	1.28 m <sup>2</sup> k/W	0.76 W/m <sup>2</sup> K
75mm	1.92 m <sup>2</sup> k/W	0.52 W/m <sup>2</sup> K
100mm	2.56 m <sup>2</sup> k/W	0.39 W/m <sup>2</sup> K
150mm	3.85 m <sup>2</sup> k/W	0.26 W/m <sup>2</sup> K
200mm	5.13 m <sup>2</sup> k/W	0.20 W/m <sup>2</sup> K
250mm	6.41 m <sup>2</sup> k/W	0.16 W/m <sup>2</sup> K