

# Black Mountain Sheep wool Insulation

## Technical Data



### Warmer

Sheep wool insulation is a natural fibre material with a thermal conductivity of 0.039W/m<sup>2</sup>.K. This product is suitable for loft space, suspended floors, partitioning walls and timber frame structures.

### Safer

Sheep wool has the ability to help manage moisture levels which minimises the risk of damp and mould. Completely natural and safe to install without protective clothing, natural wool fibre insulation will notably improve indoor air quality by allowing the structure to breathe.

### Smarter

Insulating with sheep wool will significantly reduce heat loss, lowering energy costs and increasing internal comfort. Natural fibres are also highly resilient and durable ensuring that the product will likely span the entire life of the building. Sheep wool has a unique ability to absorb VOC\* gases which can be found in various man-made building materials.



VOC: volatile organic compounds

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### Product Description

Physical properties	
Function	Natural fibre thermal insulator
Content	95% natural wool fibres
	5% combination recycled adhesive binder
Origin	Wools unsuitable for other industries
Structure	Flexible, resilient and versatile
Application	Easy to cut and shape for exact fit

### Dimensions

Rolls are ideal for use in cold lofts and suspended floor space as they save time during installation and there is less opportunity for 'cold spots' to occur.

Standard roll sizes available				
Form	Roll			
Widths	400mm/600mm			
Thicknesses	50mm	75mm	100mm	125mm
Length	10m	5m	5m	4m
m <sup>2</sup> per roll	4/6	2/3	2/3	1.6/2.4

**Bespoke sizes are available on request\***

Batts are recommended for use in warm loft application, partitioning wall space and timber frames to avoid potential movement and provide an easy fit.

Standard batt sizes available				
Form	Batt			
Widths	400mm/600mm			
Thickness	50mm	75mm	100mm	150mm
Length	1.2m	1.2m	1.2m	1.2m
Per pack	20	13	10	6
m <sup>2</sup> per pack	9.6/14.4	6.2/9.4	4.8/7.2	2.9/4.3

**Bespoke sizes are available on request\***

### Environment

- Black Mountain only use 10% of the energy required to manufacture some competing man-made insulations.
- At the end of the product life cycle natural fibres such as sheep wool will biodegrade whereas man-made mineral fibre insulations can only currently be disposed of properly in landfill sites.
- The product will remain efficient throughout the life of a typical building, eliminating any 'top up' costs.

### Technical performance

Technical standards	
Fire	Euro Class E EN 13501-1: 2002
Condensation	BS 5250: 1989
Thermal Conductivity ( $\lambda$ )	0.039 W/m <sup>2</sup> K
Thermal Resistance (R)	2.50m <sup>2</sup> °K/W
Specific Heat Capacity (c)	1700 J/kg°K
Vapour Resistivity (r)	10 MNs/gm
Moisture absorption	35% w/w
Density	19kg/m <sup>3</sup>
ODP (ozone depletion potential)	Zero
GWP (global warming potential)	Zero

### Thermal efficiency

Black Mountain sheep wool insulation is an excellent thermal insulator and offers a thermal conductivity of 0.039 W/m<sup>2</sup>.K.

### Moisture absorbency

Sheep wool insulation has the capacity to absorb and manage over 35% moisture without having a detrimental impact on product performance.

### VOC absorption

Sheep wool has a unique ability to absorb and lock away noxious gases that are emitted by various building products.

### Flame resistant

Achieving a Euro Class E fire performance rating, sheep wool insulation is classified as fire resistant and in the case of a fire will not exacerbate the situation.

### Thermal performance

Thickness	Thermal Resistance (R)	U Value
50mm	1.28 m <sup>2</sup> .k/W	0.78 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

For additional information please contact:

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We reserve the right to make alterations to our technical specifications and literature content at any time.

\*Bespoke sizes subject to minimum order.

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