

# TECHNICAL SHEET

For more information on NatuWool, please contact our sales team

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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 spaces as they save time during installation and there is less opportunity for 'cold spots' to occur.

STANDARD ROLL SIZES AVAILABLE				
Form	Roll			
Widths	600mm			
Thickness	50mm	75mm	100mm	125mm
Length	10m	7.5m	5m	4m
m <sup>2</sup> per pack	6	4.5	3	2.4

Special sizes and thickness 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 (mm)	50	75	100	150	150	200
Length	1200mm					
m <sup>2</sup> per batt	0.48			0.72		

Special sizes and thickness available on request

### Environment

- Black Mountain only use 10% of the energy required to manufacture some competing man-made insulation products.
- At the end of the product life cycle, natural fibres such as sheep's wool will biodegrade whereas man-made mineral fibre insulation products 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 (λ)	0.039 W/mK
Thermal resistance (R) (100mm)	2.50m <sup>2</sup> K/W
Specific heat capacity (c)	1700 J/kg <sup>2</sup> 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's wool insulation is an excellent thermal insulator and offers a thermal conductivity of 0.039 W/mK.

### Moisture Absorbency

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

### VOC (volatile organic compound) Absorption

Sheep's 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's 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