

# All the facts...

Thermafleece UltraWool is a high density ultra-efficient insulation rich in British sheep's wool and is the ideal choice if you are looking for maximum thermal performance when space is at a premium.

With a density of 31 kg/m<sup>3</sup> Thermafleece UltraWool also helps provide exceptional acoustic insulation performance in wall, floor and roof systems.

Research shows that using 75% wool in combination with recycled fibres outperforms alternative products with a higher percentage of wool. Our wool rich blend ensures you get the full benefit of sheep's wool with enhanced performance, durability and sustainability.

Like all Thermafleece products, it is long-lasting, safe to handle and contributes to a healthier indoor environment by regulating moisture and absorbing harmful airborne substances in the home.

## Key Facts

- ➔ Width (mm) – 390, 590
- 📏 Thickness (mm) – 50, 70, 90
- 🔊 Thermal conductivity – 0.035 W/mK
- 🔊 Sound absorption – NRC 1.10 @ 90mm
- 🔊 Sound reduction – Rw 41dB – 54dB @ 70mm
- 🌬️ Highly breathable
- 🇬🇧 Made in the UK
- 🐑 Contains British wool
- 🏭 Manufactured to ISO 9001 & 14001
- ♻️ Can be recycled

## Applications

- **Roofs** – Lofts & warm roof
- **Walls** – Timber frame & solid wall
- **Floors** – Suspended ground floor & between floor

## Why Insulate With Thermafleece UltraWool?

Insulating a property will significantly reduce the amount of energy lost from the building envelope, reducing energy consumption and carbon dioxide released to the atmosphere.

### High Performance

With a Thermal Conductivity of 0.035 W/mK, Thermafleece UltraWool is the best performing natural fibre-based insulation on the market.

### Cost Effective

Energy savings from using Thermafleece UltraWool mean it can pay for itself in a few years.

### Long Lasting

Thermafleece UltraWool contains a lofting agent to maintain durability, fibre stability and structural integrity.

### Sustainable

Thermafleece UltraWool can reduce CO<sub>2</sub> emissions by many tonnes over the lifetime of use. Wool also fixes carbon dioxide helping reduce greenhouse gas levels.

### Safe

Thermafleece UltraWool is safe to handle and can be recycled or safely disposed of at the end of its life.

Your stockist is



For more information or to buy this product please call 01793 847 444 or email [info@ecomerchant.co.uk](mailto:info@ecomerchant.co.uk)

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## Performance

- Thermal Conductivity:  $0.035 \text{ Wm}^{-1}\text{K}^{-1}$
- Density:  $31 \text{ kgm}^{-3}$
- Water Absorption (@100% RH): 24% w/w
- Specific Heat Capacity:  $1800 \text{ Jkg}^{-1}\text{K}^{-1}$
- Mould Resistance - CUAP 2002-01-25: Pass
- Moth/Beetle Proofing - ISO 3998: Pass
- Vapour Resistivity:  $9 \text{ MN}\cdot\text{s}\cdot\text{g}^{-1}\text{m}^{-1}$
- Ignition Point:  $>500^\circ\text{C}$
- Flammability to BS 5803-4: Pass
- Smoulder resistance to BS 5803-4: Pass

## Standards

- Manufactured to ISO 9001 & 14001

## Environmental

- Recycled Content: 20%
- Recyclable: Yes

## Sizes

- **Thicknesses** – 50, 70 & 90 mm
- **Widths** – 390 & 590 mm
- **Slab Length** – 1200 mm

## R Values

| Thickness mm (tolerance +/- 5mm) | Thermal Resistance $\text{Km}^2\text{W}$ |
|----------------------------------|--|
| 50                               | 1.43                                     |
| 70                               | 2.00                                     |
| 100                              | 2.86                                     |
| 140                              | 4.00                                     |
| 190                              | 5.43                                     |
| 240                              | 6.86                                     |

## Acoustic Absorption Data

| Frequency, Hz        | PRACTICAL ABSORPTION COEFFICIENT |         |         |
|----------------------|----------------------------------|---------|---------|
|                      | 50mm                             | 70mm    | 90mm    |
| 125                  | 0.20                             | 0.45    | 0.50    |
| 250                  | 0.55                             | 0.75    | 1.00    |
| 500                  | 0.85                             | 0.95    | 1.00    |
| 1.0k                 | 0.90                             | 1.00    | 1.00    |
| 2.0k                 | 1.00                             | 1.00    | 1.00    |
| 4.0k                 | 1.00                             | 1.00    | 1.00    |
| EN ISO 11654:1997    | Class B                          | Class A | Class A |
| NRC to ASTM C 423-01 | 0.85                             | 0.95    | 1.00    |

## Installation and Handling

Thermafleece UltraWool is harmless and can be installed without gloves or protective clothing. We recommend you wear a dust mask in enclosed spaces such as lofts.

Thermafleece UltraWool can be used in conjunction with a vapour permeable membrane to retain the benefits of water vapour absorption and release.

Protect the insulation from prolonged exposure to sunlight when unpacked and avoid wetting for extended periods, store under cover and clear of the ground.

For more accurate cutting, tightly compress or clamp the insulation between two pieces of solid 15mm board. Overhang the slab where you want to cut keeping the two board edges aligned. Cut the edge with a scalloped edged knife and keep the blade firm and square against both board edges throughout.