

Sheep's Wool Performance Benefits...

The Thermafleece range of sheep's wool insulation has many benefits over conventional mineral based insulation.

Excellent Hygrothermal Properties

Even at a moisture content of 20%, the wool fibre will feel dry to the touch and its insulating performance will not be affected. Wool fibres also radiate heat when they absorb water which can have a stabilising effect on temperature under certain conditions. This is in contrast to mineral fibre that can lose a lot of its thermal performance as a result of small increases in moisture level.

Unique Chemical Properties

Wool can chemically fix harmful substances found in our indoor air including formaldehyde which is linked to many health effects. This is due to the complex chemical structure of the keratin protein in wool.

Higher Thermal Mass

Thermafleece can store more heat. It requires about 2.5 to 3 times more energy to increase the temperature of Thermafleece by one degree Celsius compared to mineral fibre or polyester. This can contribute towards heat stabilisation in the property.

Superior Dimensional Stability

Wool insulation will retain its structure and provide consistent performance and energy savings throughout its service which is in excess of 60 years. Mineral fibres and low density synthetic fibre insulation on the other hand are prone to slumping in service which can reduce the performance of the insulation by

typically 25% during service. This in turn can result in higher than expected heating and replacement costs over the lifetime of the building.

Acoustic Performance

Thermafleece acts as a very effective insulation absorbing material for use in voids and performs better than many synthetic alternatives.

Helping Reduce Global Warming

Because wool captures carbon dioxide as the fleece grows, the Global Warming Potential of the insulation is significantly reduced. Moreover, Thermafleece has a low embodied energy of manufacture meaning that when it is necessary to use fossil fuels during production, these are kept to a minimum. Even allowing for the energy consumed during production, for every tonne of Thermafleece manufactured, more than 300kg of carbon dioxide is removed from the atmosphere.

Reduced Energy Consumption in Service

Compared to an uninsulated loft, installing a 240mm thickness of Thermafleece in the loft will reduce carbon dioxide emissions from a typical household by as much as 1 tonne per year and even upgrading existing insulation can reduce annual CO₂ emissions by 250kg.

Safe Disposal or Re-use

Thermafleece contains natural fibres that pose no threat to the environment and can be safely reused or recycled at the end of life.