

What is Thermafleece?

Thermafleece is made of wool which is a natural fibre from a fully renewable resource, consequently the life cycle of the product has an ideal energy balance. Thermafleece is manufactured to a density of 25kg/m³ giving a K-value of 0.039 W/m.K. Because of its ability to rapidly absorb and release water vapour, Thermafleece wool insulation can help to keep buildings cool in summer and warm in winter.

Keeping it COOL!

When the outside temperature increases and begins to heat the wool, it releases moisture; that has a cooling effect on the fibre which reduces the flow of heat to the inside of the building. This can reduce peak temperature by up to 7 c when compared to buildings in which alternative forms of insulation are installed.

Hotting things up!

In the winter the absorption of moisture by wool insulation can increase peak temperature by up to 4 c when compared to buildings in which alternative forms of insulation are installed.

Naturally breathable

Thermafleece, being hygroscopic, can absorb and desorb water vapour without compromising its thermal efficiency. It is therefore ideal for use in roofs and timber framed walls designed to avoid a damaging build-up of moisture by allowing water vapour to migrate through the structure. In this type of construction, Thermafleece is the perfect partner for a vapour-permeable breather membrane used on the cold side of the thermal insulation to prevent the infiltration of cold air and wind driven rain and dirt. Heat loss by convection is also substantially reduced because the insulation is protected by the breather membrane preventing air movement across the surface.

Condensation Control

Wool generates heat when it absorbs moisture from the air. That energy is known as the heat of sorption and accounts for the warmth felt by wearers of woollen clothes in winter conditions. When the air is saturated with water vapour, wool absorbs some 40% of its dry weight in moisture, producing 960 kilojoules of heat energy for every kilogram of dry wool. This warmth is not noticeable inside the building but it acts to prevent condensation in construction cavities by maintaining the temperature above the dew-point in damp conditions.

Energy Efficient- Totally Safe!

The cleaning, air-laying and thermal bonding processing during the manufacture of Thermafleece consumes minimal energy. Thermafleece uses only 14% of the embodied energy that is used to manufacture glass fibre insulation, therefore paying back its manufacturing energy cost seven times faster than glass fibre. Thermafleece is harmless and can be installed without gloves or protective clothing. It is not irritating to the skin, eyes or respiratory tract and causes no discomfort to site workers during installation. Any fibres which happen to reach the living space will present no hazard to health. The necessary insect proofing and fire resistance rating is achieved by the inclusion of naturally derived additives.

Extremely Durable

The fibre adapts to the shape of rafters, joists and studs to provide a permanently tight fit. Properly installed, Thermafleece will retain its low density and thermal performance - with a life expectancy similar to that of the construction in which it is installed.

Recyclable

At the end of its useful life, Thermafleece can be recycled for other environmentally friendly applications. Thermafleece contains no permethrin, pyrethroids, pesticides or formaldehydes.