



For pleasantly cool rooms in summer.
Now living under the roof becomes comfortable.



Insulation between the rafters with THERMO HEMP PREMIUM

- ✓ Pleasant cool under the roof in summer
- ✓ Insulation for healthy living, natureplus® certified
- ✓ High quality insulation made from an annually renewable raw material
- ✓ Best mark "0" in the test for the susceptibility to mould



Ecological Building Systems

For stockist information and full technical support for your project, please contact Ecological Building Systems or visit www.EcologicalBuildingSystems.com

Excellent summer heat protection

Ideal phase shift of 9.8 hours with 22 cm **THERMO HEMP PREMIUM**. This corresponds to a conventional installation of more than 40 cm glass wool insulation.

Glass wool: 20 kg/m³, λ 0.035 W/m·K, c = 830 J/(kg·K)

Most of the heat enters the house through the roof. Therefore we recommend insulating 22 cm **THERMO HEMP PREMIUM** between the rafters. **With a value of 2300 J/(kg·K)**, this excellent natural product reaches an **excellent specific heat storage capacity** (test result of the Material Testing Institute Leipzig).

For thousands of years hemp has been a well-known and used natural fibre. For the production of **THERMO HEMP PREMIUM** very little primary energy is required. The hemp plant itself deprives even more CO₂ than it is released during production.

How the heat shield works:

On hot summer days, the space between the tiles and the insulation on the roof can heat up to 80°C. **The hemp insulation strongly damps the penetrating heat which only reaches the interior approximately 9.8 hours later – during evening hours.** The heat stored in the insulation is given off to the cool night air.

Your advantages:

Pleasant temperatures in your attic, even without expensive and electricity intensive air conditioner.

Natural and healthy indoor climate through the natural raw material characteristics of the hemp fibre.



natureplus certified insulation. The installation and use is completely harmless and there is no pollutant emission to people or environment.

Soda is used as fire protection. A natural salt which is also used in the food production (backing powder).

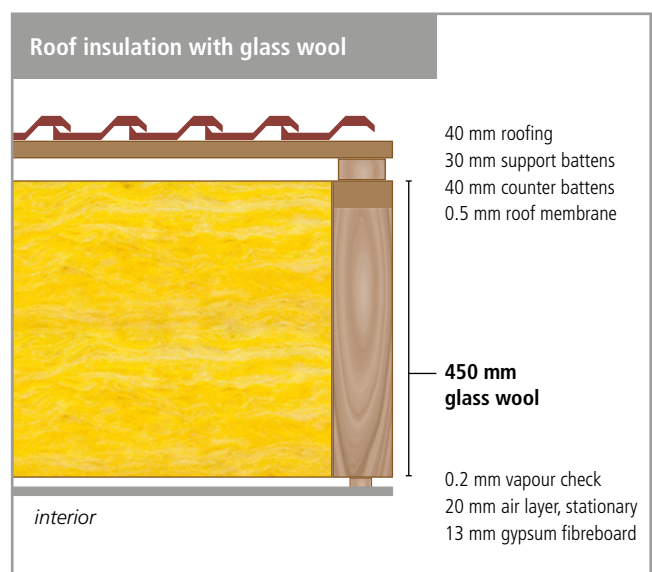
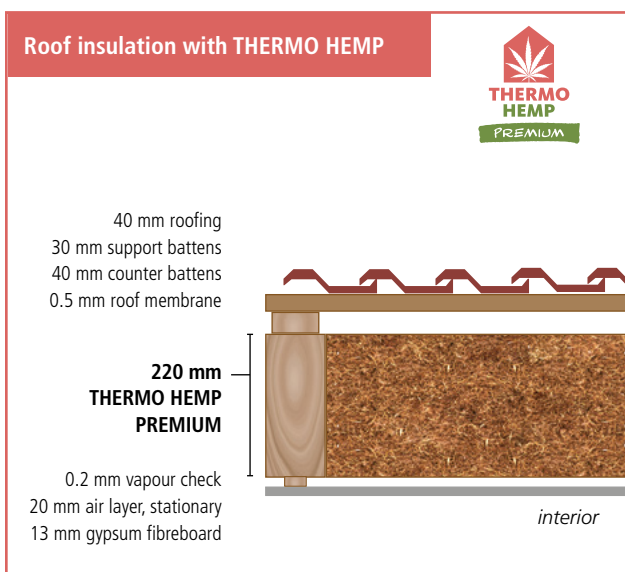
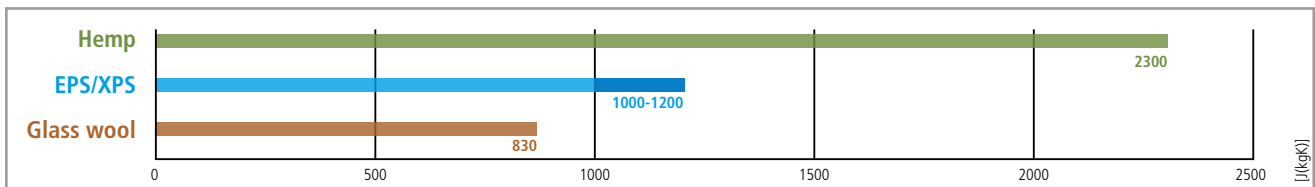
No mould growth. Best mark "0" in the test for the susceptibility to mould.

Moisture regulating. The capillarity of the plant fibre remains intact, moisture is derived by the hemp fibre through the construction from the outside and/ or the inside.

Positive CO₂ balance and sustainability by using renewable raw materials.

Very good lambda value: λ10, dry / m·K 0,0396 W / m·K

Heat storage capacities



Comparison of the thickness

A thickness of over 40cm of glass wool would be required to gain a comparable effect of heat protection!