Technical Information Sheet

NBT Hemp Insulation Batts

Description
NBT Hemp Batts are a natural fibre insulation made from hemp fibres. These fibres are bound together using a thermoplastic binder. NBT Hemp Batts are treated with inorganic salts to provide fire and pest resistance. NBT Hemp Batts are simple to install, and non-irritant to touch.

Certification
NBT Hemp Batts have full European product certification, ETA 06/0040. They also have full life cycle environmental certification under the "natureplus" method (see www.natureplus.de). The manufacturing plant is certified to the ISO 9001:2000 quality standard.

Sizes
NBT Hemp Batts are available in the following sizes…

Product	Density (Kg/m3)	Thickness (mm)	Width (mm)	Length (mm)	Packing (no. per pack)
Hemp Batts	40	50	385	1200	12
Hemp Batts	40	50	575	1200	12
Hemp Batts	40	75	385	1200	8
Hemp Batts	40	75	575	1200	8
Hemp Batts	40	100	385	1200	6
Hemp Batts	40	100	575	1200	6

Design

NBT Hemp Batts can be used in loft spaces, between rafters and within walls and floors. They are not however suitable for cavity wall insulation, or under ground floor slabs. They have very good loft and an elastic form, so that they hold their size and shape in all specified applications and are easy to fit and hold between rafters and in walls, without additional fixings. NBT Hemp Batts have good thermal and acoustic insulation properties and also good thermal mass. They are vapour open and hygroscopic, making them excellent for use in "breathing" construction.

Physical properties of NBT Hemp Batts

- Thermal Conductivity — 0.040 W/mK
- Fire class according to EN 135011 — E
- Building Materials Class acc. DIN 4102 — B2
- Density — 40Kg/M3
- Specific heat capacity — 1700 J/Kg.K
- Vapour Resistivity (r) — 10 MNs/gm
- Water Vapour Absorption (hygroscopic take-up) humidity from 50% to 85%. — Average 10% by weight with increase of relative

Moisture absorption and release:
NBT Hemp Batts can absorb and release moisture without degrading and without overall loss of thermal resistance. This gives them a margin of safety against the formation of interstitial condensation.

Hemp Insulation CO2 Effect
For every 1Kg of hemp insulation used instead of mineral wool 1.4Kg of CO2 is saved.
[German paper: lifecycle analysis of hemp.]

Resistance to decay:
In common with wood, hemp fibres are based on cellulose. Therefore, prolonged exposure to water will cause decay. When properly installed NBT Hemp Batts will retain their loft and thermal performance for the life of the building.

Installation

Cutting:
NBT Hemp Batts can be cut with an insulation knife, or a stanley knife. No other special tools are required. Use a straight edge and cut onto a board, compressing the insulation, as it is cut. A Bosch type sabre saw with non-serrated blade can also be used with the insulation compressed.

Fixing: walls:
NBT Hemp Batts should be firmly pressed into place between studs to ensure a snug fit with no gaps. Square cut edges of batts should be fitted tightly together without gaps.

Fixing: floors, lofts and ceilings:
Ensure that insulation is fitted fully between joists/rafters, with no gaps. Any odd shaped gaps should be filled with NBT Hemp Batt off cuts.

Storage
NBT Hemp Batts should be stored under cover, flat (not on end) and clear of the ground until ready for use.

Health and Safety
Hemp fibres are harmless; therefore NBT Hemp Batts can be installed without gloves or protective clothing. NBT Hemp Batts are not irritating to the skin, eyes or respiratory system. However a simple dust mask is advisable.

Composition

Hemp fibres, polyolefin fibres, ammonium phosphate

Enquiries

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