



Natural Fibre Insulation

NBT Pavaflex | Product description:

NBT Pavaflex is a natural, flexible insulation made from wood fibres.

NBT Pavaflex is treated with an inorganic salts to provide fire and pest resistance.

NBT Pavaflex is easy to install and non-irritant to touch, and can be easily cut with most cutting tools - sharp blade, knife, wood saw, etc. It offers excellent thermal performance with a k value of 0.038 W/mK and a density of 55kg/m³ and provides a fully breathable insulation with excellent moisture buffering.



Application:

NBT Pavaflex can be used in loft spaces, between rafters and within walls and floors in new build, renovation and conservation projects. It is not suitable for in-cavity wall insulation or under ground floor slabs. The high density ensures excellent slump resistance while the elastic form maintains size and shape well while still allowing the flexibility to ensure a snug and complete fit.

NBT Pavaflex has excellent thermal and acoustic insulation properties, and the great thermal mass provides effective insulation in summer as well as in winter. It is vapour open and hygroscopic, providing excellent performance in breathing walls.

Benefits:

- Excellent thermal performance
- Thermal mass for summer insulation
- Hygroscopic properties provide vapour control and humidity buffer
- Acoustically effective
- Durable product
- Sustainable and environmental
- Self-supporting, no slump
- Safe to handle, easy to work with, cut, etc
- Protected against fire and insect/animal infestation
- Versatile and proven solution in new build, renovation and conservation



Environmental Performance:

Life Cycle Assessment analysis shows there is more carbon locked up within **NBT Pavaflex** than is released in production, allowing the insulation to be considered carbon negative.

Made from renewable and sustainable natural fibres, from FSC certified, managed forestry resources. Contain no VOC's or CFC's and does not constitute a waste hazard on disposal.



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Technical details:

Thermal conductivity	0.038	W/mK
Specific heat capacity	2100	J/kgK
Density	55	Kg/m ³
Vapour resistivity	25	MNs/gm
Diffusion resistance factor	5	-
Fire protection rating to EN 13501-1	Euroclass E	
Thickness	40mm - 240mm (20mm increments)	
Dimensions	375 & 575mm width	1350mm length
Stock sizes	50, 80, 100 & 140mm thick	
Composition	82% 8% 10%	Wood fibres Binding agent (Polyolefin) Inorganic salt fire retardant (ammonium polyphosphate)



NBT Support:

Design support: Full design support including drawings review, assistance with detailing, thermal bridging (New Part L) and interstitial moisture calculations.

Training: either at NBT or on site for applicators, site managers etc.

Site Support: NBT will assist on site, giving advice on technical, application and quality issues.

Approved Applicators: NBT have a list of trained and approved applicators for the various systems processes.

Technical Performance:

Thermal excellence

The complex non-woven structure reduces heat loss through convection, while the moisture regulating properties of natural fibres mean there is no heat loss through dampness (as can happen in loft spaces). These two factors have been proven in tests to improve thermal performance by up to 10% over conventional lightweight fibre insulations.

Durability

NBT Pavaflex uses simple, natural and non-reacting compounds to provide protection against insects, biological and fungal attack, and to make it unattractive to vermin while remaining harmless to common building components.

Moisture control

NBT Pavaflex actively assists in the control of moisture in buildings, drawing vapour away from vulnerable timbers and other building materials without any loss of thermal or acoustic performance or danger to the durability of the building and its component parts.

Acoustics

The high density of NBT Pavaflex and the complex nature of the interwoven fibres give the batts excellent sound absorption characteristics.

Fire protection

NBT Pavaflex is approved for use as loft, wall and ceiling insulation and achieves a Euroclass E rating. This fire protection is achieved through treatment of all fibres with simple non-reacting salt compounds.

Self-supporting and non-slumping

The combination of high density and great flexural strength gives NBT Pavaflex excellent firmness and ensures it retains its shape and dimensions throughout its service life, providing a tight fitting and non-slumping insulation.