



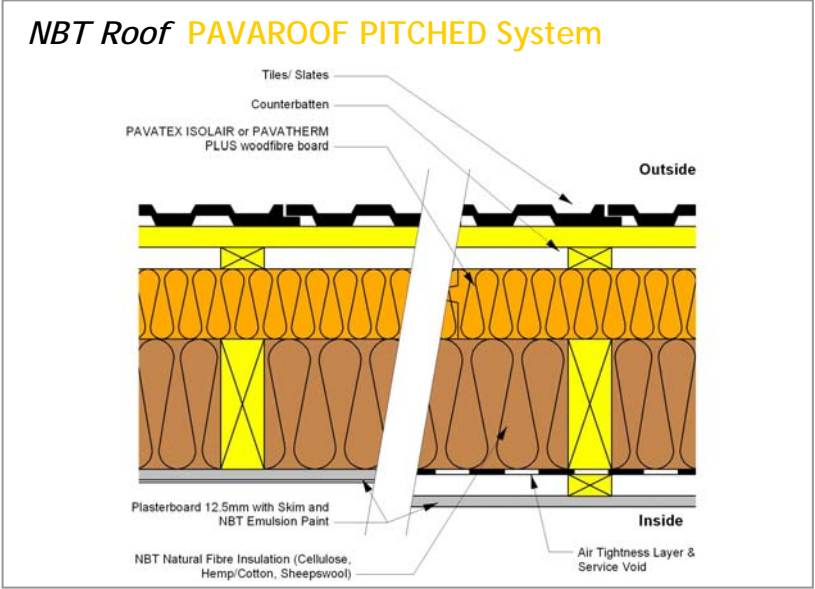
Roof Solutions

PAVAROOF PITCHED / System description:

NBT Pavaroo Pitched roofing system is for pitched roofs above 10° with vented roof coverings of all sorts.

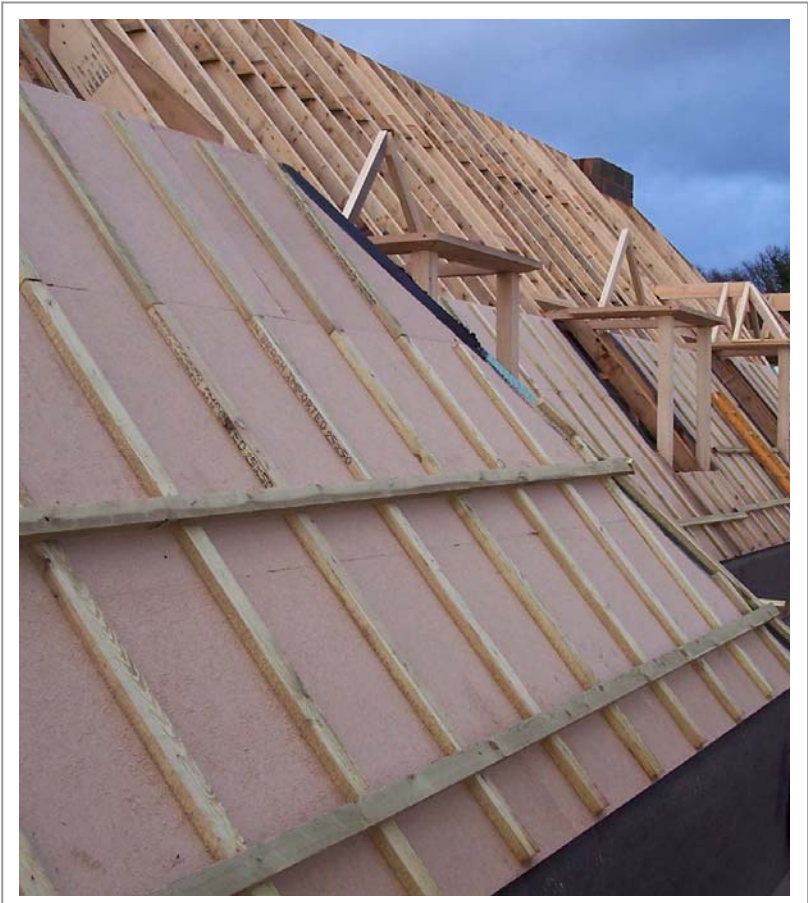
The Pavaroo Pitched system uses a water resistant interlocking woodfibre board over the rafters in an unbridged layer, to provide a highly insulated roof both thermally and acoustically. The system does not require either a membrane over the outside or any vapour barrier internally.

NBT provide natural hygroscopic high performance insulations as infill insulation, as well as clay boards and environmental paints as internal options.



System Application:

NBT Pavaroo Pitched Roofing System is suitable both for new build and for the refurbishment/ upgrading of existing roofs. It is particularly suitable for rooms in roofs, and other applications where there can be problems with summer overheating or with external noise pollution. It is also highly suitable for breathing building construction and the refurbishment of historic buildings



System Benefits:

- Excellent thermal performance, with very low thermal bridging (y values), enabling slim construction for new Part L compliance
- Excellent windtightness
- Excellent acoustic insulation
- Excellent overheating control
- Fully breathing construction
- Full design and site support from NBT
- Full systems parts from NBT
- Robust and easy system to install
- Tried and tested system, fully certified

Environmental Performance:

- BREEAM Green Guide rating: A
- Carbon positive (locks up more than is used) and non toxic
- Woodfibre Boards are over 95% waste



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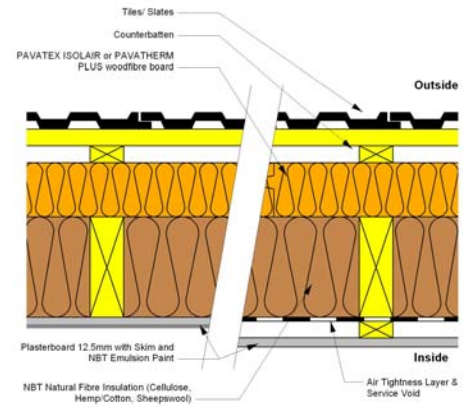
Technical details: Thermal values

Rafter Depth 100mm (fully filled with hemp/cotton insulation, 0.039 W/mK)

Insulation Layer	22mm Isolair	35mm Isolair	60mm Isolair	60mm Pavatherm Plus	80mm Pavatherm Plus	100mm Pavatherm Plus
U-Value* [W/m²K]	0.34	0.32	0.27	0.26	0.23	0.21
Decrement Factor	0.92	0.85	0.64	0.72	0.57	0.44
Decrement Delay [h]	2.6	3.6	5.7	4.9	6.4	7.7
Admittance [W/m²K]	1.02	1.03	1.05	1.05	1.06	1.06

Rafter Depth 150mm (fully filled with hemp/cotton insulation, 0.039 W/mK)

Insulation Layer	22mm Isolair	35mm Isolair	60mm Isolair	60mm Pavatherm Plus	80mm Pavatherm Plus	100mm Pavatherm Plus
U-Value* [W/m²K]	0.25	0.24	0.21	0.20	0.19	0.17
Decrement Factor	0.86	0.78	0.56	0.64	0.49	0.37
Decrement Delay [h]	3.7	4.7	6.9	6.2	7.6	9.0
Admittance [W/m²K]	1.04	1.05	1.06	1.06	1.06	1.06



Typical acoustic performance with 60mm woodfibre board:
r > 52dB

*based on JPA calculation with 8% bridging (timber) and no service void

Calculations for other roof build ups available from NBT. Also calculation of γ values available for specific roof build ups, enabling better thermal performance calculations and/or thinner structures.

Full System Components:

Insulation boards: Interlocking, waterproof Isolair boards (22, 35, 60mm) and Pavatherm Plus boards (60, 80, 100mm).

Tapes and Glues: Pavatape for exposed edges, valleys, hips, ridges, service penetrations etc. Also special glues for board edges on pitches between 10° and 20°. On pitches over 20° board edges are not glued.

Fixings: A range of helical and screw fixings for different boards and roofing materials

Infill insulation: NBT provide natural insulation materials such as Hemp Cotton, Sheepswool and Cellulose

Plaster boards and paints: NBT can provide clay boards, plasters and trade environmental paints for ceilings

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. NBT have a service to work with contractors who are new to the product

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



PAVAROOF PITCHED - Rowe Lane