

## Technical Specification

WF – EN13171 – T3 – CS(10Y)20 – TR2.5 – WS2.0 – MU5 – AF100

### Description

Pavatherm is a wood fibre board to EN 13171: Fibreboards for building constructions; Insulation material for thermal protection. The board does not contain any glue nor wood preservers.

Pavatherm is quality monitored by the FMPA Stuttgart.

Pavatherm is an insulating fibreboard. Pavatherm is applied in roof constructions (inter beam and over beam constructions) and in wall constructions.

Boards are supplied in standard size of 1020 mm x 600 mm (thicknesses of 20, 30, 40, 60, 80, 90, 100mm), 1020 x 2050 mm (thickness of 40 and 60 mm).

The edges of Pavatherm insulation boards are straight.

Tests on the finished products are carried out to determine:

- Thickness
- Compression test at 10% compression
- Tensile Strength
- Thermal conductivity
- Water absorption
- Density

### Delivery and site handling

The boards are delivered to site wrapped in polythene. Each pack bears the manufacturer's trade name, the EN 13171 identification and CE sign, its properties according to EN 13171, the identification symbol of the quality monitoring FMPA Stuttgart and of natureplus.

The product must be stored dry and flat at the site. The boards must be applied dry. Care must be taken to avoid contact with solvents and fresh wood preservers.

The boards must not be exposed to open flame or other ignition sources.

## Design Data

### General

Pavatherm is effective in reducing the U value (thermal transmittance), in improving acoustic sound protection and summer heat protection (decrement delay). Pavatherm guarantees an active breathing housing. Pavatherm can be used in new and renovation buildings.

Pavatherm is applied in over rafter and inter rafter insulations as well as in timber construction walls. Pavatherm is not water-resistant. Therefore it must be protected with a water-resistant layer as Isolair "L" or a breather, waterproof membrane.

### Properties in relation to fire

The boards do not prejudice the fire resistance properties of the roof nor of the wall. When properly installed the boards will not add significantly to any existing fire hazard. The boards will not present a toxic hazard.

According to DIN 4102 Pavatherm belongs to the material class B2. According to EN 13501-1 it belongs to material class E.

### Moisture penetration

Moisture can penetrate the board. The board is not water-repellent.

### Water vapour penetration

Pavatherm is a fibreboard with a very low vapour resistance factor  $\mu = 5$  (i.e. 25 MNs/gm). It is therefore no barrier for water vapour and it is diffusion open.

### Thermal insulation

The  $\lambda_D$  value or k-value (thermal conductivity) of the boards when measured to EN 12667 is 0.038 W/mK at a density of 140 kg/m<sup>3</sup>.

### Loadings

The compression resistance at 10% compression is 20 kPa. In constructions where loads have to be beard (over rafter insulation) the fixing happens with Twice Threaded Screws or Hellfix Inskew to lead the load directly into the beam.

### Durability

The boards are not rot-proof. They are dimensionally stable and, when installed properly, will remain effective as insulating material for the life of the building in which they are incorporated.