

# Floor betonstyr eps+betonwood

Complete dry floor system with Betonstyr EPS coupled panels and BetonWood cement bonded particle boards

# Beton Wood

Complete insulating floor system with high performances



## | DESCRIPTION

Complete dry building floor system on new and existing grounds with high performances Floor **betonstyr eps + betonwood** guarantees the maximum durability over time is guaranteed, with international ETA certification.

The floor system in new construction or renovations of existing floors consists in a first layer with cement bonded particle boards coupled with insulating expanded polystyrene **Betonstyr EPS**. Above an additional layer of high density and high resistant **Betonwood** cement bonded particle boards is laid and fixed with **NF57** self-drilling screws directly on the **Betonstyr EPS** surface.

Excellent system for excellent thermal and acoustic insulation of walkable floors.

Stratigraphy consists of **Betonstyr EPS** coupled panels in cement bonded particle boards and highly insulating expanded polystyrene, with an excellent compression resistance, high density ( $1350 \text{ kg/m}^3$ ), and particularly suitable for humid environments.

Above this stiffening / insulation layer must be fixed, with **NF57** self-drilling screws, a single layer of **BetonWood** cement bonded particle boards with high density, high mechanical resistance and certified fire class A2.

These panels must be installed in staggered way be laid in a staggered manner with respect to the arrangement of the **Betonstyr EPS** panels of the lower layer.

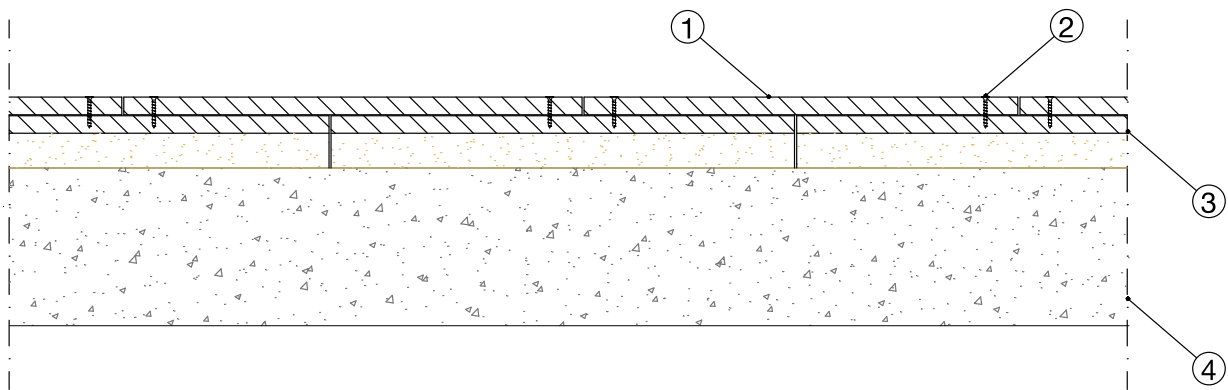
### Advantages

- Excellent solution even as flat roof (with the addition of further layers, for clarification call our technical office)
- Excellent protection from summer heat thanks to the high thermal displacement;
- Hygroscopic material, particularly suitable for humid environments;
- Available thicknesses from 18+20 to 20+100 mm;
- Excellent thermal and acoustic insulation;
- Fire resistance class A2
- Excellent mechanical resistance against burglary, antivandalism.

For more informations about the uses and the installation, our offices are ready to answer your questions on [www.betowood.com](http://www.betowood.com)



## | STRATIGRAPHY



- 1 **Cement bonded particle boards BetonWood** | thickness 16 -18 mm made by Portland cement and wood fibers, has an high density of 1350 kg/m<sup>3</sup> and an excellent compression resistance equal to 9.000,00 Kpa. These particular boards guarantee an optimal building solution to obtain high levels of thermal displacement, thanks to their high density which makes them also suitable for self-supporting dry screeds, radiant floors and stiffening structures.
- 2 **Screws NF57** The screw has a special anti-corrosion coating that guarantees a 1,000-hour salt spray resistance. Under-head with very sharp self-sinking fins for a perfect housing of the head flush with the slab. Spoon tip (spoon) with very high perforation capacity.
- 3 **BetonStyr eps** BetonStyr EPS rigid insulating panel, ... mm thick, made up of two layers coupled in the factory consisting of a BetonWood cement bonded particle board, high density (1350Kg / m<sup>3</sup>), made of Portland cement mix and barked pine wood fiber thickness ... mm and an insulating layer of expanded polystyrene with a thickness of ... mm. The cement bonded particle board has the following thermodynamic characteristics: density 1350 Kg/m<sup>3</sup>, coefficient of thermal conductivity  $\lambda = 0.26 \text{ W / mK}$ , specific heat  $c = 1.88 \text{ KJ / Kg K}$ , coefficient of resistance to vapor penetration  $\mu = 22.6$  and reaction class to A2 fire, according to EN 13501-1. The expanded polystyrene is characterized by the following thermodynamic characteristics: density 15÷35 Kg/m<sup>3</sup>, coefficient of thermal conductivity  $\lambda = 0,026 \div 0,036 \text{ W / mK}$ , specific heat  $c = 1,450 \text{ J / Kg K}$ , coefficient of resistance to vapor penetration  $\mu = 50 \div 100$ . Both materials are CE certified.
- 4 **Ground** new building and/or existing grounds



## | SYSTEM'S PRODUCTS



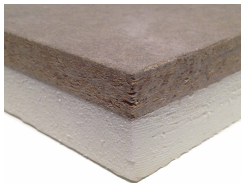
**BetonWood** The BetonWood cement bonded particle boards, with high density ( $1350 \text{ Kg/m}^3$ ), made of Portland-type cement conglomerate and debarked Pine wood fiber. These panels have the following thermo-dynamics characteristics: thermal conductivity coefficient  $\lambda=0,26 \text{ W/mK}$ , specific heat  $c=1,88 \text{ KJ/Kg K}$ , coefficient of resistance to vapor penetration  $\mu=22,6$  and reaction to fire class A2-fl-s1, according to the standard EN 13501-1.

The panels size is ... mm and the thickness is ... mm.

The wood used in panel processing comes from forests controlled by FSC reforestation cycles and pressed with water and hydraulic binder (Portland cement) with high cold compression ratios.



**Vite NF57** Self-tightening screw for fixing the wood cement (tip with very high perforation capacity). The screw has a special anti-corrosion coating that guarantees a 1,000-hour salt spray resistance; and thanks to the non-ceramic treatment ensures greater drilling speed.



**BetonStyr EPS** Beton Styr EPS is an extremely versatile product as it is suitable for many building applications, because the advantages of two materials are combined in one coupled: on one side a material with a high mass and high compressive strength, the BetonWood cement bonded particle boards high density, indispensable for obtaining an adequate thermal displacement and a great noise reduction, on the other an expanded polystyrene panel characterized by lightness, high insulating capacity and easy processing.

The cement bonded particle board has the following thermodynamic characteristics: density  $1350 \text{ Kg/m}^3$ , coefficient of thermal conductivity  $\lambda = 0.26 \text{ W / mK}$ , specific heat  $c = 1.88 \text{ KJ / Kg K}$ , coefficient of resistance to vapor penetration  $\mu = 22.6$  and reaction class to A2 fire, according to EN 13501-1. The expanded polystyrene is characterized by the following thermodynamic characteristics: density  $15\div35 \text{ Kg/m}^3$ , coefficient of thermal conductivity  $\lambda = 0,026 \div 0,036 \text{ W / mK}$ , specific heat  $c = 1,450 \text{ J / Kg K}$ , coefficient of resistance to vapor penetration  $\mu = 50 \div 100$ . Both materials are CE certified.

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## | CERTIFICATIONS

The floor insulation system BetonStyr EPS and BetonWood cement bonded particle boards is produced with CE certified materials in accordance with current regulations.



GENERAL SECURITY INSURANCE GUARANTEE  
ON THE PRODUCT WITH CORRECT DOCUMENTED  
INSTALLATION WITH PHOTOGRAPHS

**Beton Wood**

