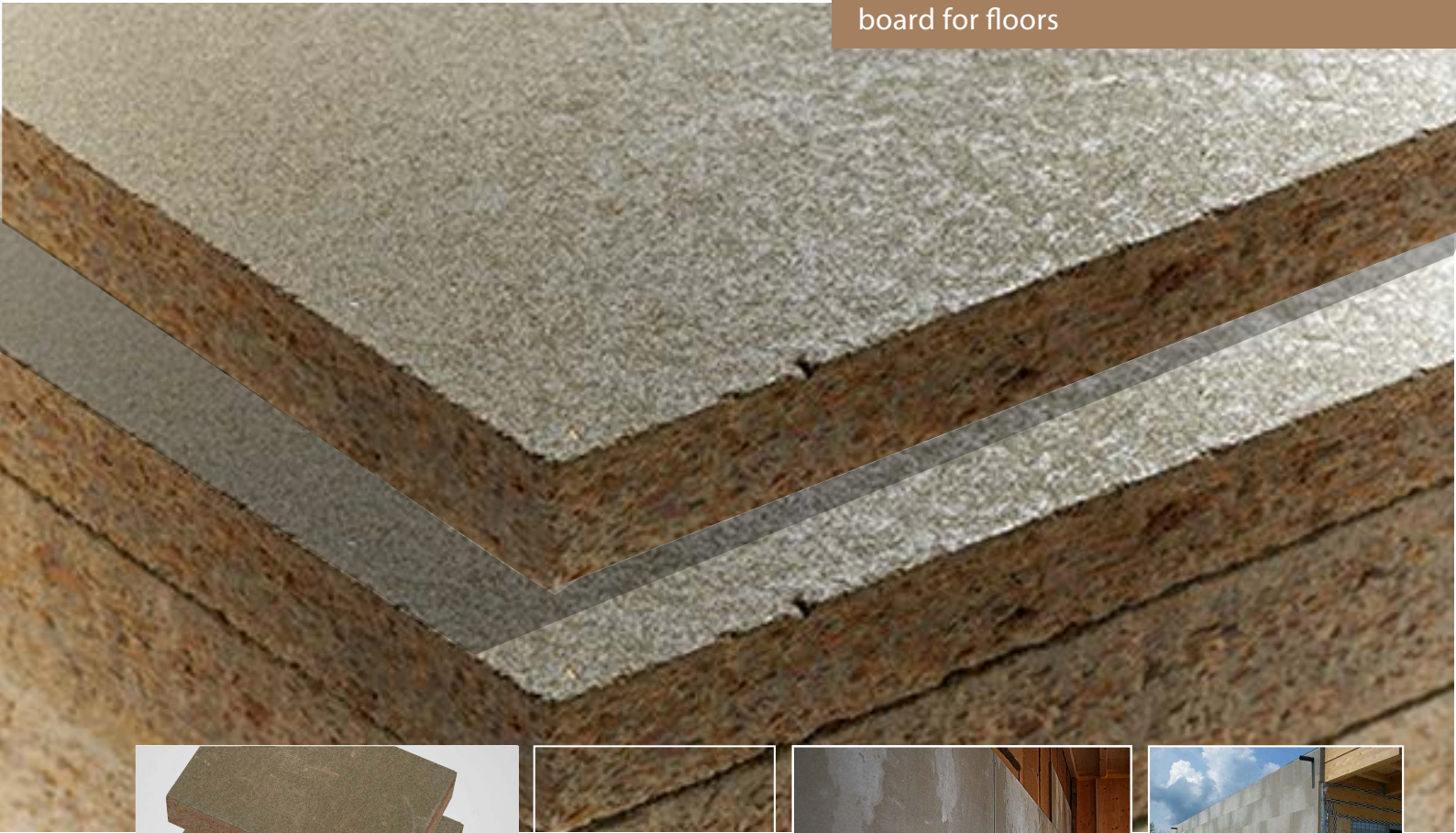


# Betonfloor

High density cement bonded particle boards (1350Kg/m<sup>3</sup>) for floors

# Beton Wood

Cement bonded particle board for floors



## | DESCRIPTION

The cement bonded particle boards Betonfloor is the product that gives the name of our company and it's a material which suits a great variety of applications in the building industry. Realized in Portland cement and wood fibers, this particular panel provides an excellent solution for interventions designed to achieve high levels of thermal lag, due to its high density which makes it also suitable for self-supporting dry screeds, radiant floors and stiffening structures.

## | MATERIAL

Cement bonded particle board Betonfloor in Portland cement and wood fibers. The Betonfloor panel has a great density (1350 Kg/m<sup>3</sup>), four stepped edges, it is a multiple-use material for green building.

The BetonFloor cement bonded particle boards combines the advanced features of the cement with the wood properties. The panel structure is realized with wood fibers, fragments and chips which are uniformly agglomerated by Portland cement. The surfaces are smooth, with the gray color typical of cement; however the product can undergo sanding operations becoming more brown.

- it has a lighter color than other traditional material for building;
- it is resistant to climatic changes and freezing;
- fungi and insects are not able to attack or damage it;
- thanks to its physical and mechanical features, the product is considered one of the better material for green building with light weight;
- is incombustible (A2 according to Standard DIN 4102);
- is formaldehyde-free and free from asbestos, etc.;
- is free from recycled inks (found in recycled cellulose materials);
- is weather resistant;
- workable with wooden tools;
- high load capacity.

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



## | USES

Betonfloor is suitable for the realization of:

- radiant and pre-armed floors;
- ventilated roofs with high thermal displacement;
- ceilings resistant to fire and flames (A2 class);
- traditional and floating floors;
- load supports for floors and walls;
- external and internal coatings with high strength;
- platforms and slides;
- exhibition equipment for prefabricated boxes;
- road and rail acoustic barriers;
- escape routes, firefighting measures.

## | SPECIFICATIONS

High density and high mechanical resistance panels Betonfloor. Betonfloor has dimensione ... mm and a thickness of ... mm, is realized in two coupled cement bonded particle boards and stepped edges.

Both of the panels are made in high density cement bonded particle board BetonWood. The panels is realized in cement mixing Portland cement type and debarked Pine wood fiber, with high density ( $\delta=1350 \text{ Kg/m}^3$ ) and the following thermodynamic properties: coefficient of thermal conductivity  $\lambda = 0,26 \text{ W/mK}$ , specific heat equal to  $c=1,88 \text{ KJ/Kg K}$ , steam penetration resistance coefficient  $\mu=22,6$  and the reaction to fire class A2-fl -s1, according to the standard EN 13501-1. The panel sizes correspond to ... mm for a thickness equal to ... mm.

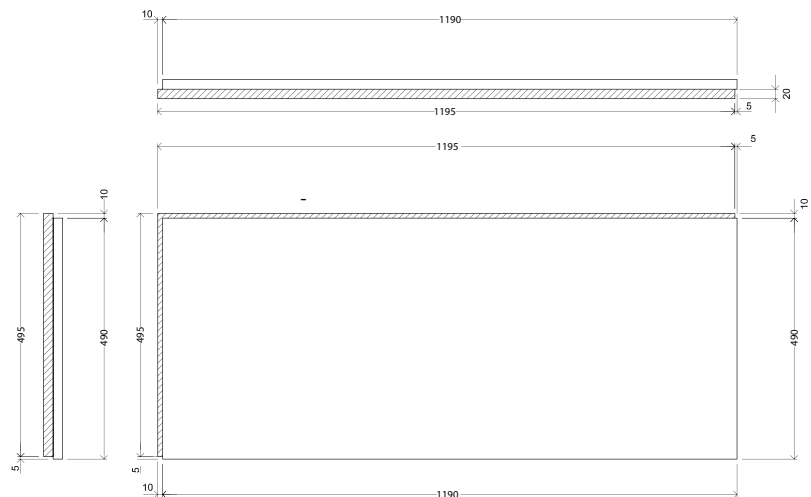
The wood used in the processing of the panel comes from FSC controlled forests with reforestation cycles and it is pressed with water and hydraulic binders (Portland cement) with high cold compression ratios.

Material is CE certified. The panel is supplied already coupled with a size of ... mm.

## | AVAILABLE DIMENSIONS Beton floor

thickness (mm)	size (mm)
20+20	1200 x 500

The Betonfloor cement bonded particle boards are available also in the Sanded version, these panels comes from standard panels appropriately smoothed and calibrated with appropriate machinery, to bring the thickness of the panels to lower dimensional tolerances. These particular panels have the characteristic of being aesthetically pleasing, as the wood contained inside stands out in the upper and lower part, compared to the standard panel, which has the particularity of having a totally cement-like appearance.



## | STORAGE/TRANSPORT Beton floor

Panels size 1200 x 500 mm

thickness (mm)	m <sup>2</sup> /panel	kg/m <sup>2</sup>	kg/panel	panels/pallet
20+20	0,63	52,0	34,0	28

- delivering the material is normally done by trucks, considering the high mass of the pallet is advisable that the recipient has suitable equipment and mechanical lifting devices with minimal flow rates of 35-40 quintals per unloading of the goods;
- it is advisable to deposit the panels overlapping one another and maintain them in a horizontal position, with supports with a square section and a minimum of 80 cm spacing;
- the transport of the individual sheets must take place never in horizontal way;
- avoid direct exposure to sunlight and adequately cover the material to prevent an excessive accumulation of dust;
- the pallets are provided with a top plate of protection, which must be repositioned from time to time above the other tables and ballasted superiorly to prevent distortion of the plates below it.



## CERTIFICATIONS

BetonWood cement bonded particle board is CE certified according to the standard UNI EN 13501-2.



## APPLICATIONS

The installation is closely linked to the type of use of the panel according to what will be appropriate to adopt the most suitable method of application.

The BetonWood N cement bonded particle boards are also:

- outdoor resistant
- antifreeze
- free from formaldehyde, asbestos
- fire resistant (class A2)

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## TECHNICAL CHARACTERISTICS BetonWood

Density $\rho$ [kg /m <sup>3</sup> ]		1350
Reaction to fire in order to the standard EN 13501-1		A2-fl-s1
Thermal conductivity coefficient $\lambda_D$ [W / (m * K)]		0,26
Specific heat $c$ [J / (kg * K)]		1.880
Steam penetration resistance $\mu$		22,6
Coefficient of linear thermal expansion $\alpha$		0,00001
Swelling in thickness after 24h of storage in water		1,5%
Superficial PH value		11
Flexural strength $\sigma$ [N /mm <sup>2</sup> ]		min.9
Transversal tensile strength $N$ [N /mm <sup>2</sup> ]		min.0,5
Air permeability $l$ /min. m <sup>2</sup> Mpa		0,133
Modulus of elasticity $E$ [N /mm <sup>2</sup> ]		4500
Shear strength $\tau$ [N /mm <sup>2</sup> ]		0,5
Resistance to distributed load kPa		9000
Resistance to concentrated load kN		9

## STRUCTURE CHARACTERISTICS panels loading power Betonfloor

Thickness (mm)	Uniformly distributed load (kN/m <sup>2</sup> )							
	1,00	1,50	2,00	2,50	3,00	4,00	5,00	6,00
	Support space (cm)							
40	178	148	130	117	108	95	85	79

## ACOUSTIC INSULATION Betonfloor

Thickness (mm)	Soundproofing power (dB)					
	100	200	400	800	1600	3150
	Frequency (hz)					
40	23,5	28,7	34,1	39,6	45,1	50,6