

BetonWood tongue&groove

High performance cement bonded particle boards with tongue and groove edges

BetonWood

Cement bonded particle board with tongue and groove edges



| DESCRIPTION

The cement bonded particle boards **BetonWood tongue&groove** are suitable for many uses in construction. 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.

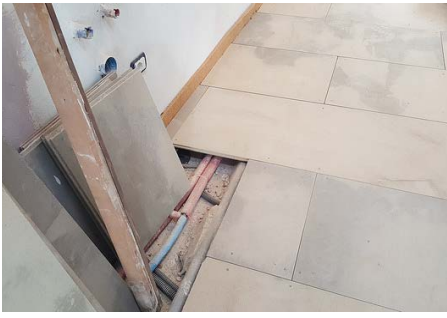
This particular panel has the distinction of having tongue and groove edges for joint and an optimal laying precision.

The **BetonWood tongue&groove** cement bonded particle board is excellent if used in floating dry screeds.

The **BetonWood tongue&groove** cement bonded particle boards combine 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. **BetonWood tongue&groove** has the following characteristics:

- 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;
- it is incombustible (A2 according to Standard DIN 4102);
- it is formaldehyde-free and free from asbestos, ecc.;
- it is free from recycled inks (found in recycled cellulose materials);
- it is weather resistant;
- it can be processed with woodworking tools;
- it has high load capacity.

For more informations about the uses and the installation, our offices are ready to answer your questions on www.betonwood.com



| USES

The BetonWood tongue&groove cement bonded particle board has a particular tongue and groove edge which allows you to fit and fix one panel to the other.

It can be used as:

- floating dry floor;
- elevated floor or traditional floor structure;
- loading support for floors;
- platform for desks, platforms and slides;
- finishing surfaces for exhibitions or furnitures.

| SPECIFICATIONS

High density cement bonded particle board BetonWood tongue&groove. The panels are 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.

| AVAILABLE DIMENSIONS/THICKNESSES Beton Wood tongue&groove

Thickness	Dimensions (mm)	
	1200 x 500 (standard surface)	1200 x 500 (sanded surface)
20+20 mm	•	•

| STORAGE/TRANSPORT

Beton Wood tongue&groove

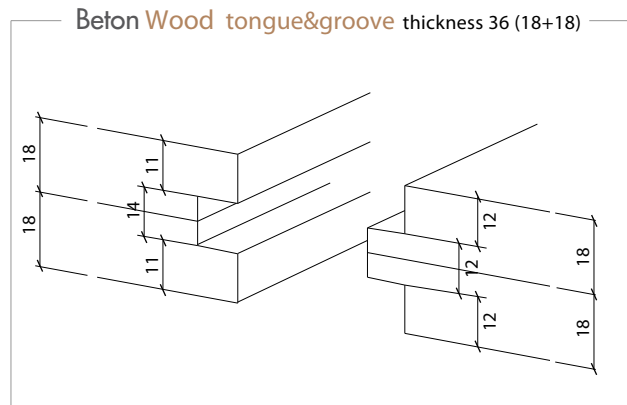
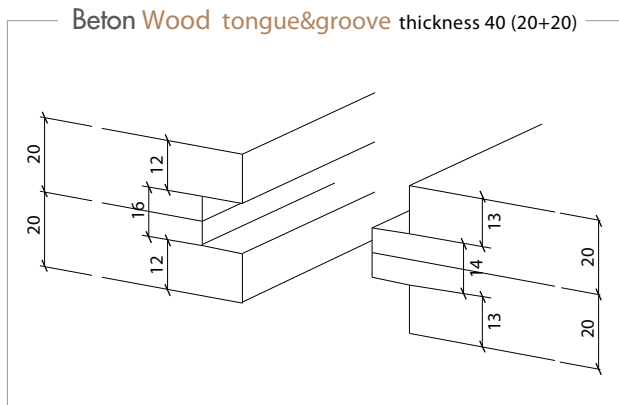
Tongue and groove edges

Dimension (mm)	Tot.surface (mm)	Thickness (mm)	Panels / Pallet	m ² / Pallet	Pallet size
1200 x 500	1.214 x 514	20	25	15,000	1.20 x 0.5 x 0.7

- 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.

| EDGES

Beton Wood tongue&groove





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 TG cement bonded particle boards are also:

- outdoor resistant
- antifreeze
- free from formaldehyde, asbestos

CERTIFICATIONS

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



TECHNICAL CHARACTERISTICS Beton Wood tongue&groove

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

STRUCTURE CHARACTERISTICS Beton Wood tongue&groove

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

ACOUSTIC INSULATION Beton Wood tongue&groove

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

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