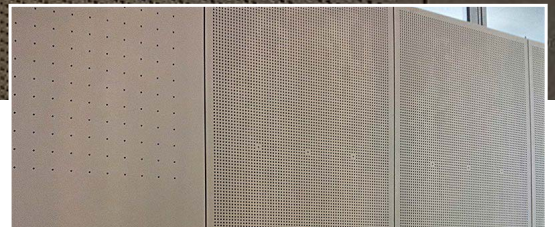
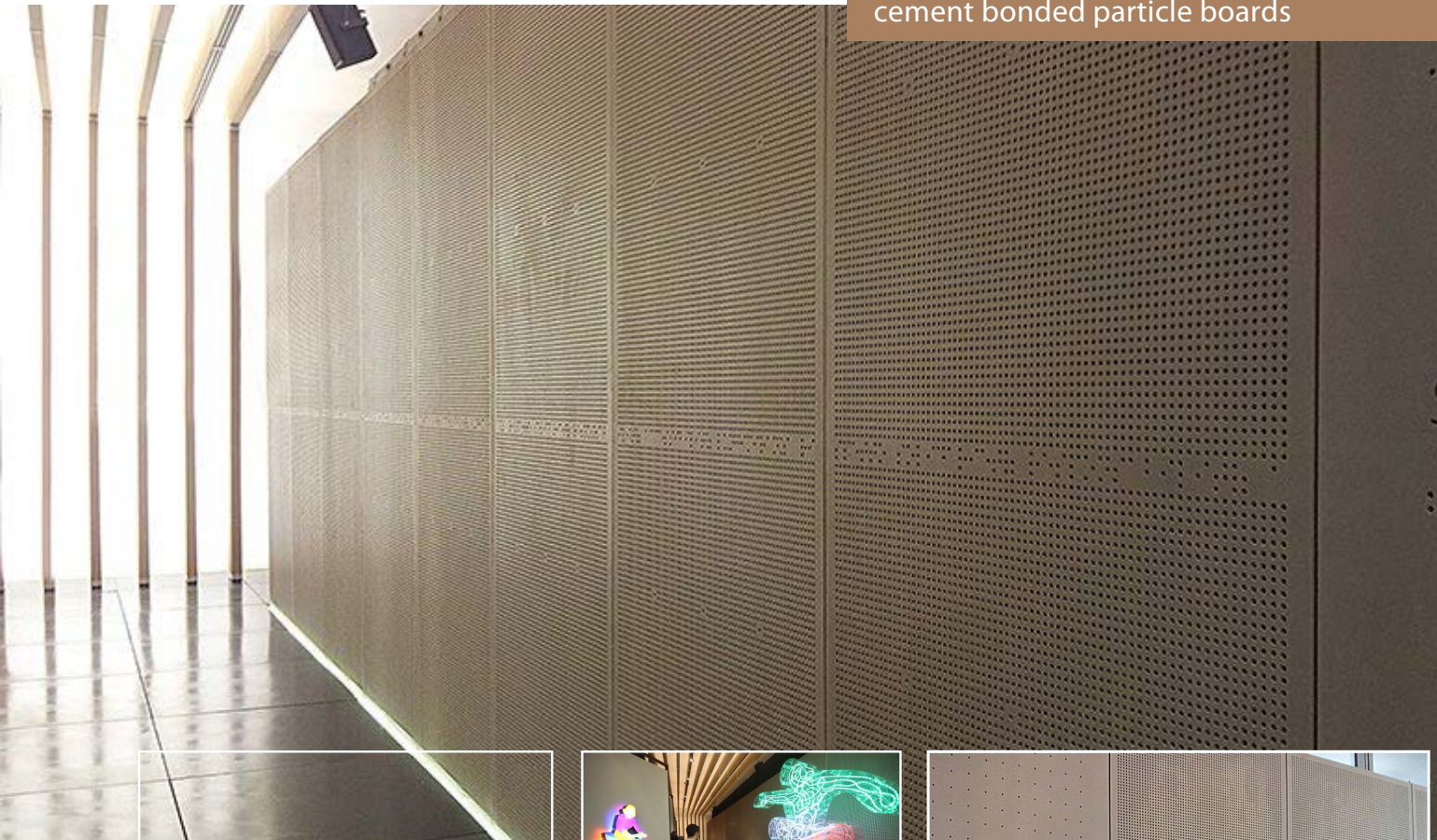


High acoustic insulating
cement bonded particle boards



| DESCRIPTION

BetonAcustik cement bonded particle boards in addition to having a high density, thanks to a special processing of the panel, it also has excellent sound insulation. In fact, thanks to its structure characterized by small holes with a diameter of 1/2 mm, one from the other 30/32 mm, it is an excellent sound-absorbing material for interior walls, acoustic barriers (motorways, railways), public buildings such as: libraries, hospitals, offices, museums and all the places where it is necessary that the acoustic values remain within certain limits.

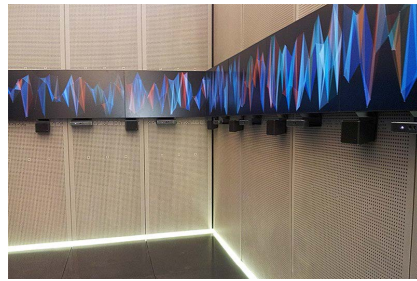
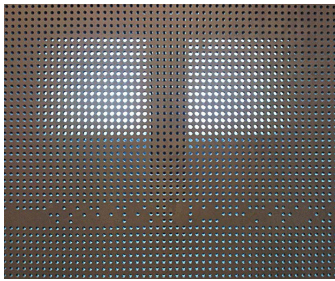
| MATERIAL

BetonAcustik high density panel (1350 Kg/m³), is made of Portland-type cement conglomerate and debarked pine wood fiber from forests controlled by reforestation cycles and FSC-certified. CE certified material.

BetonAcustik panels are resized in perforated cement bonded particle board in order to obtain excellent acoustic performances. With their round perforations evenly distributed on the entire panel or only on the sides, the BetonAcustik panels can be combined with each other thus obtaining harmonious and personalized decorations. BetonAcustik panels combine the advantageous characteristics of cement with those of wood. The following are the main features:

- high acoustic insulation;
- 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;

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



AVAILABLE DIMENSIONS AND THICKNESSES BetonAcustik

The BetonAcustik 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.

The BetonAcustik cement bonded particle boards can be processed on the edges in order to facilitate the joints during installation:

- stepped edge for thicknesses less than 14 mm
- tongue&groove edge for thicknesses of 20 mm

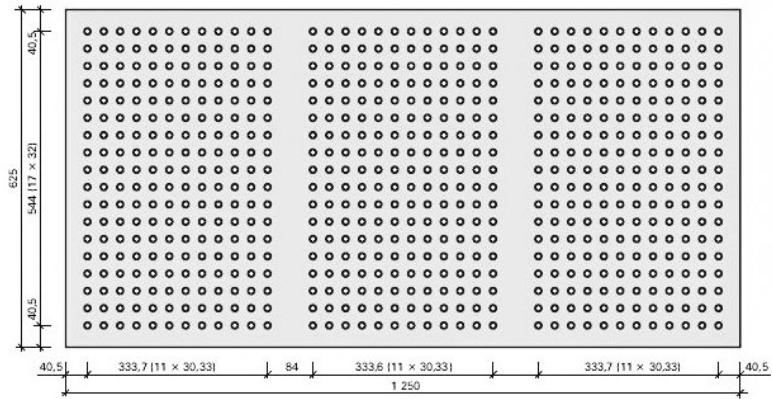
SPECIFICATION

High density cement bonded particle board BetonAcustik. 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.

The microperforation of the standard panel is equal to 12 mm in diameter with the spacing between a hole and the other of 30/32 mm. ON REQUEST it is possible to make micro-holes different from the STANDARD one.

| Thickness (mm) | Sizes (mm) | |
|----------------|-------------|--------------------------|
| 10 | 3200 x 1250 | 2800 x 1250 |
| 12 | 3200 x 1250 | 2800 x 1250 |
| 14 | 3200 x 1250 | 2800 x 1250 |
| 16 | 3200 x 1250 | 2800 x 1250 |
| 18 | 3200 x 1250 | 2800 x 1250 |
| 20 | 3200 x 1250 | 2800 x 1250 1220 x 520 |

TECHNICAL DRAWING size 1250 x 625 mm



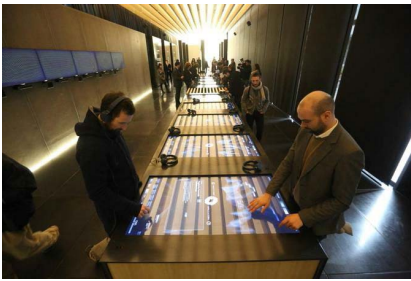
STORAGE/TRANSPORT BetonAcustik

| 3200 x 1250 (mm) | Thickness (mm) | m ³ / Panel | Weight(Kg/m ²) | Weight/Panel | Panels/ Pallet |
|------------------|----------------|------------------------|----------------------------|--------------|----------------|
| | 10 | 0,040 | 13,5 | 54,0 | 60 |
| | 12 | 0,048 | 16,2 | 64,8 | 50 |
| | 14 | 0,056 | 18,9 | 75,6 | 40 |
| | 16 | 0,064 | 21,6 | 86,4 | 35 |
| | 18 | 0,072 | 24,3 | 97,2 | 30 |
| | 20 | 0,080 | 27,0 | 108,0 | 30 |

| 2800 x 1250 (mm) | Thickness (mm) | m ³ / Panel | Weight(Kg/m ²) | Weight/Panel | Panels/ Pallet |
|------------------|----------------|------------------------|----------------------------|--------------|----------------|
| | 10 | 0,035 | 13,5 | 47,3 | 60 |
| | 12 | 0,042 | 16,2 | 56,7 | 50 |
| | 14 | 0,049 | 18,9 | 66,2 | 40 |
| | 16 | 0,056 | 21,6 | 75,6 | 35 |
| | 18 | 0,063 | 24,3 | 85,1 | 30 |
| | 20 | 0,070 | 27,0 | 94,5 | 30 |

1220 x 520 (mm)

| Thickness (mm) | m ³ / Panel | Weight(Kg/m ²) | Weight/Panel | Panels/ Pallet |
|----------------|------------------------|----------------------------|--------------|----------------|
| 20 | 0,63 | 27,0 | 17,0 | 56 |



| USES

Il pannello ad elevato isolamento acustico **BetonAcustik** può essere impiegato come superficie fonoassorbente in:

- museums and libraries;
- offices and banks;
- acoustic barriers (including motorways);
- stands and exhibitions for events;
- internal and external coverings.

| CERTIFICATIONS

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



| STORAGE/TRANSPORT

- 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.

BetonAcustik

| TECHNICAL CHARACTERISTICS BetonAcustik

| | |
|--|----------|
| 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 |
| Air permeability l/min. m ² Mpa | 0,133 |

| ACOUSTIC INSULATION BetonAcustik

| | | Soundproofing power (dB) | | | | | |
|----------------|----|--------------------------|------|------|------|------|------|
| | | 100 | 200 | 400 | 800 | 1600 | 3150 |
| | | Frequency (hz) | | | | | |
| Thickness (mm) | 10 | 13,7 | 18,6 | 23,7 | 29,0 | 34,4 | 39,7 |
| | 12 | 14,6 | 19,6 | 24,7 | 30,0 | 35,5 | 40,8 |
| | 14 | 15,8 | 20,8 | 26,0 | 31,4 | 36,8 | 42,2 |
| | 16 | 16,9 | 21,9 | 27,2 | 32,5 | 38,0 | 43,3 |
| | 18 | 17,5 | 22,6 | 27,8 | 33,2 | 38,7 | 44,0 |
| | 20 | 18,3 | 23,5 | 28,7 | 34,1 | 39,6 | 45,0 |

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