

Radiant **betonradiant** on wood fiber



Complete radiant heating floor system with high density wood fiber **FiberthermBase** and modular **Betonradiant** panels on X-lam

Complete insulating floor system with high performances



| DESCRIPTION

The complete dry construction system for x-lam floors with high performance dry elevated radiant heating system with **BetonRadiant** panels, high density wood fiber **Fibertherm Base** and self-leveling agent **Betonultraplan**. Maximum durability over time is guaranteed.

On an X-lam floor, the system consists in a single layer of radiant heating panels **BetonRadiant** that guarantee the housing of the heating pipes and the trampling. These are laid on a layer of wood fiber panels **Fibertherm Base** which possesses excellent properties of thermo-acoustic insulation and high density and high compression resistance. Above the radiating system one or more **Betonultraplan** self-leveling layers is applied to level and eliminate differences in thickness from 1 to 10 mm, ensuring high resistance to loads.

Stratigraphy consists of radiant **Betonradiant** cement bonded particle boards with high compression resistance and high density (1350 kg/m^3) laid on **Fibertherm Base** wood fiber panels with a high density (250 kg/m^3).

On the top of radiant heating panels one or more layers of **Betonultraplan** self-leveling smoothing layer with ultra-rapid hardening is applied, to level and eliminate thickness differences from 1 to 10 mm.

Solution with high thermal performance and simple application.

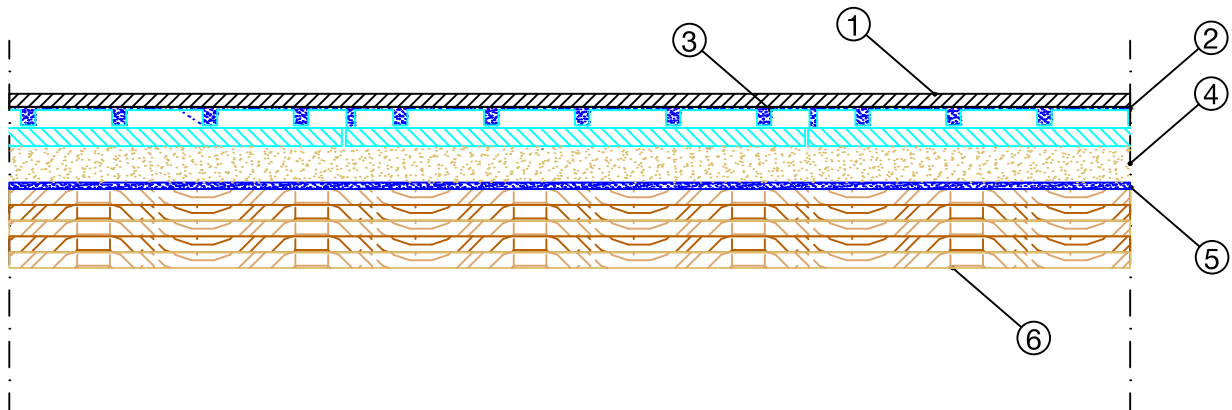
Advantages

- Excellent radiant floor heating on X-lam
- Remarkable acoustic protection thanks to the porosity of the insulating panels
- Available thicknesses of **BetonRadiant** (from 18+18 to 20+20 mm)
- It creates a comfortable living climate
- Material CE certified
- Ecologic material with controlled quality, recommended by Natureplus®;
- Hygroscopic material regulates humidity and gives us security over time.
- Extreme ease of installation

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



STRATIGRAPHY



- 1 Floor finish surface
- 2 **Self-leveling Beton Ultraplan** self-leveling and ultra-rapid hardening agent used in indoor environments to level and eliminate thickness differences from 1 to 10 mm of new or existing substrates, making them suitable for receiving any type of flooring in rooms where high resistance to loads and traffic is required .
The consumption of BetonUltraplan is 1.6 kg/m² per millimeter of thickness.
- 3 **Radiant heating panels Betonradiant** The system is composed of two types of panel: the overlying cement bonded particle board, BetonWood type, with thickness equal to... mm, is milled for the lodging of the heating pipes with a diameter of ... mm, while the other, also in BetonWood cement bonded particle board, with a thickness of... mm, is the lower stiffening layer. The panels size is ... mm and the thickness is ... mm.
The two panels are made of Portland-type cement conglomerate and debarked Pine wood fiber with high density ($\delta=1350$ Kg/m³) and with the following thermo-dynamics characteristics: coefficient of thermal conductivity $\lambda = 0.26$ W / mK, specific heat $c = 1.88$ KJ / Kg K, coefficient of resistance to vapor penetration $\mu = 22.6$ and reaction class to A2 fire, according to EN 13501-1. The wood used in the processing of the panel comes from forests controlled and certified FSC.
- 4 **Wood fiber Fibertherm Base** FiberTherm Base wood fiber with high density 250 kg/m³ is a rigid insulating panel with an excellent compression resistance (150KPa) suitable to the thermal and acoustic insulation of floor, attics and roofs. This is a panel produced with wet process, recyclable and made exclusively with wood from controlled forests in compliance with the FSC guidelines. Guarantees the creation of environments with a high living comfort as well as a truly healthy indoor atmosphere.
- 5 **Self-leveling Beton Ultraplan** self-leveling and ultra-rapid hardening agent used in indoor environments to level and eliminate thickness differences from 1 to 10 mm of new or existing substrates, making them suitable for receiving any type of flooring in rooms where high resistance to loads and traffic is required .
The consumption of BetonUltraplan is 1.6 kg/m² per millimeter of thickness.
- 6 Ground X-lam ground



| SYSTEM'S PRODUCTS



Betonultraplan Self-leveling, ultra-rapid self-leveling smoothing. Betonultraplan mixed with water gives rise to a very smooth mixture, easy to work, perfectly self-leveling, with high adhesion to the substrate and very quick drying.

It is applicable with pump up to distances of over 100 m.

It is applied in thicknesses up to 10 mm for each single hand, without undergoing any shrinkage, without forming cracks and cracks, until it reaches a high resistance to compression, flexion, imprint and abrasion.

The completion of Betonultraplan is 1,6 kg/m² per millimeter of thickness.

Betonultraplan is available in bags from 23 kg.



BetonRadiant Beton Radiant is a modulare radiant heating system for the construction of radiant floors and consists of two cement bonded particle boards, high density (1350 kg / m³) as per European standard EN 13986.

Modular panel that guarantees an excellent ease of installation and a flexibility that make it ideal for the realization of radiant floor heating systems. One of the panels is milled to house pipes for radiant floor heating systems, while the other forms the underlying layer. The top panel after laying the pipes and filling the milling is suitable for any surface finish coating. The two panels are coupled in the factory with a patented system and the wood used in their processing comes from FSC forests controlled by reforestation cycles and pressed with water and hydraulic binder (Portland cement) with high cold compression ratios.

These panels have the following termo-dynamics characteristics: thermal conductivity coefficient $\lambda=0,26$ W/mK, specific heat $c=1,88$ 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.



Fibertherm Base The FiberTherm Base wood fiber panel is a rigid thermal insulation completely ecological ideal to be used in dry and wet screeds, and walkable floors thanks to its high compression resistance (150 kPa), to its high density 250 kg/m³, and to its properties of walking noise insulation.

The panel is free of any type of toxic substance, it is also recyclable and made exclusively with wood from controlled forests in compliance with the FSC guidelines. It is produced with a wet system, according to EN 13171 and EN 13986 standards under constant quality control and is characterized by the following thermodynamic characteristics: density approx. 250 Kg/m³, thermal conductivity coefficient $\lambda=0,048$ W/mK, specific heat $c=2100$ J/Kg K, coefficient of resistance to vapor penetration $\mu=5$ and fire reaction class E, according to the standard EN 13501-1.

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| CERTIFICATIONS

The floor radiant heating system in BetonRadiant modular panels, high density wood fiber panels Fibertherm Base and self-leveling Betonultraplan are 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

