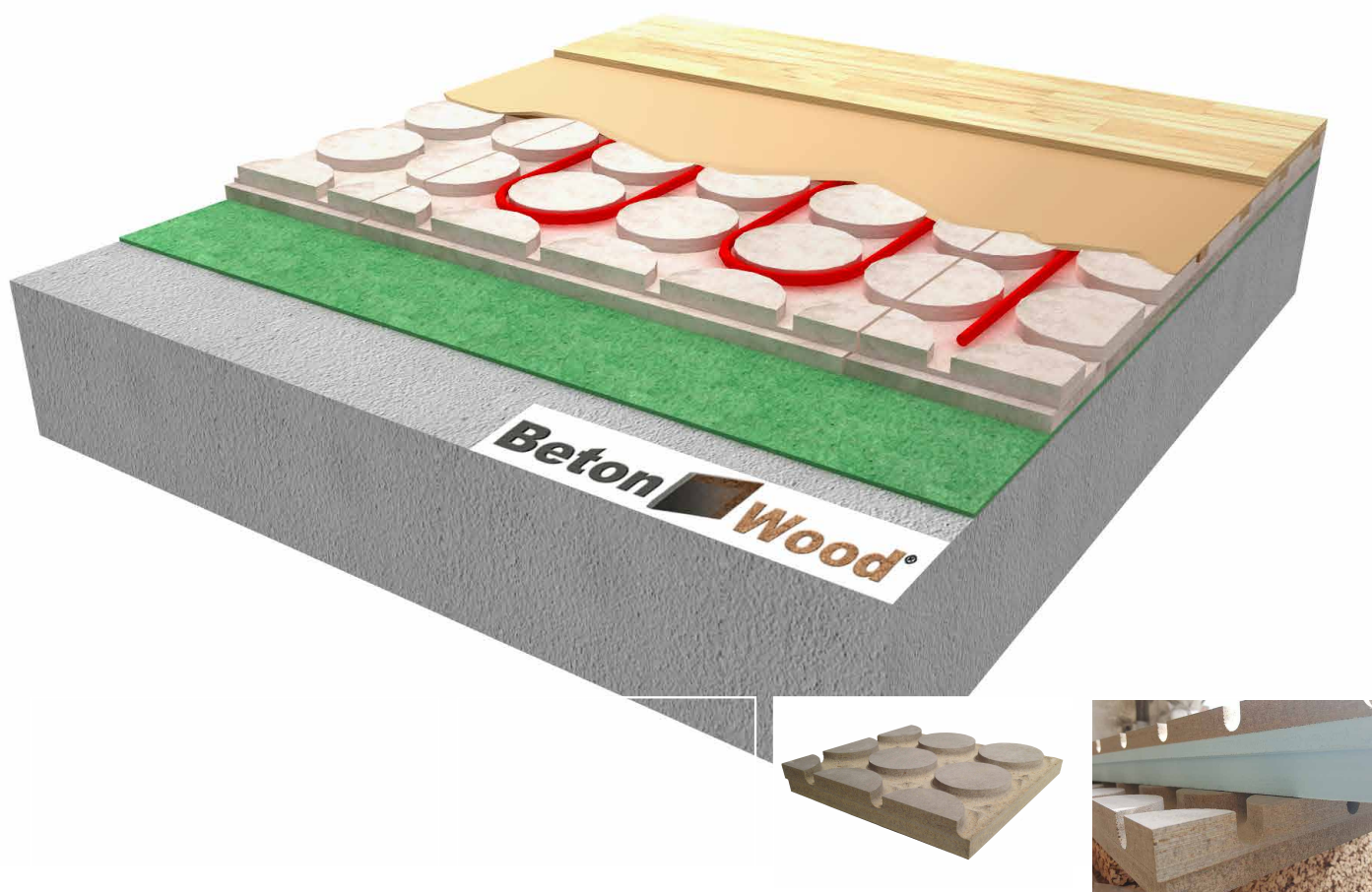


# Radiant **betonradiant** on underfloor

# Beton **Wood**

Complete radiant heating floor system with a thin mat of wood fiber  
Fibertherm Underfloor and modular high density Betonradiant panels

Complete insulating floor  
system with high performances



## | DESCRIPTION

The complete dry construction system for new or existing floors with high performance dry radiant heating system with BetonRadiant panels, wood fiber Fibertherm Underfloor and self-leveling agent Betonultraplan. Maximum durability over time is guaranteed.

On an existing 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 thin mat of wood fiber Fibertherm Underfloor which possesses excellent properties of thermo-acoustic insulation. 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<sup>3</sup>) laid on a thin mat of Fibertherm Underfloor wood fiber with acoustic insulation and high density (250 kg/m<sup>3</sup>).

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.

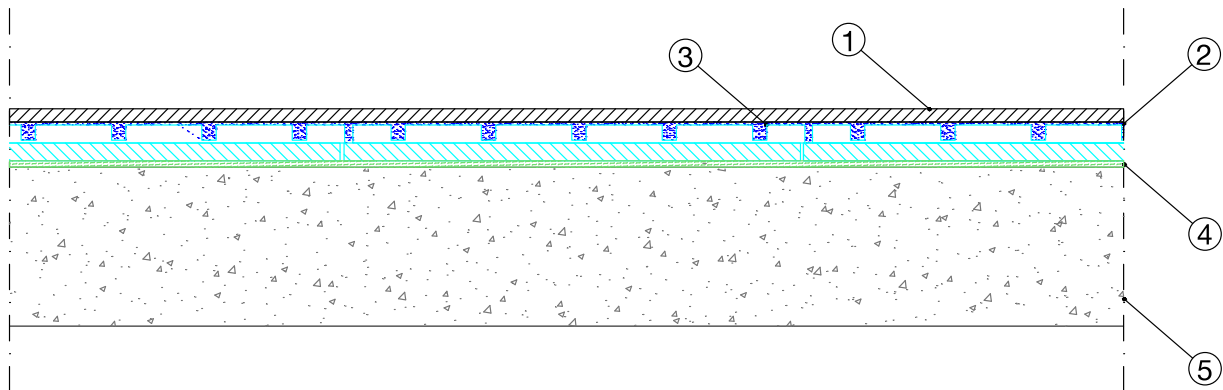
## Advantages

- Excellent radiant floor heating
- 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](http://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 **Beton Ultraplan** is 1.6 kg/m<sup>2</sup> 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/m<sup>3</sup>) 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 Underfloor** floor underlay characterized by good impact sound insulation and high improvement of environmental acoustics, excellent insulation characteristics, high resistance to pressure up to 20 t / m<sup>2</sup> - important for interlocking systems. Its density is 250 kg/m<sup>3</sup> and the declared thermal conductivity is  $\lambda 0,06 \div 0,1$  [ W / (m\* K )]. This wood fiber panel is produced in wet process, it is recyclable and made exclusively with wood from controlled forests in compliance with the FSC guidelines.
- 5 Ground new building and/or existing grounds



## | 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/m<sup>2</sup> 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 / m<sup>3</sup>) 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 Underfloor** The wood fiber thin mat FiberTherm Underfloor is a thermo-acoustic insulation with which you get a high improvement of acoustics for pre-finished parquet and laminate floors up to 19 dB.

Its density is equal to 250 kg/m<sup>3</sup>.

The material is also recyclable, with relative NaturePlus certification and made exclusively with wood from controlled forests in compliance with the FSC guidelines.

BETONWOOD Srl

Head office :  
Via Falcone e Borsellino, 58  
I-50013 Campi Bisenzio (FI)

T: +39 055 8953144  
F: +39 055 4640609

info@betonwood.com  
www.betonwood.com

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## | CERTIFICATIONS

The floor radiant heating system in BetonRadiant modular panels, thin wood fiber panels Fibertherm Underfloor 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**

