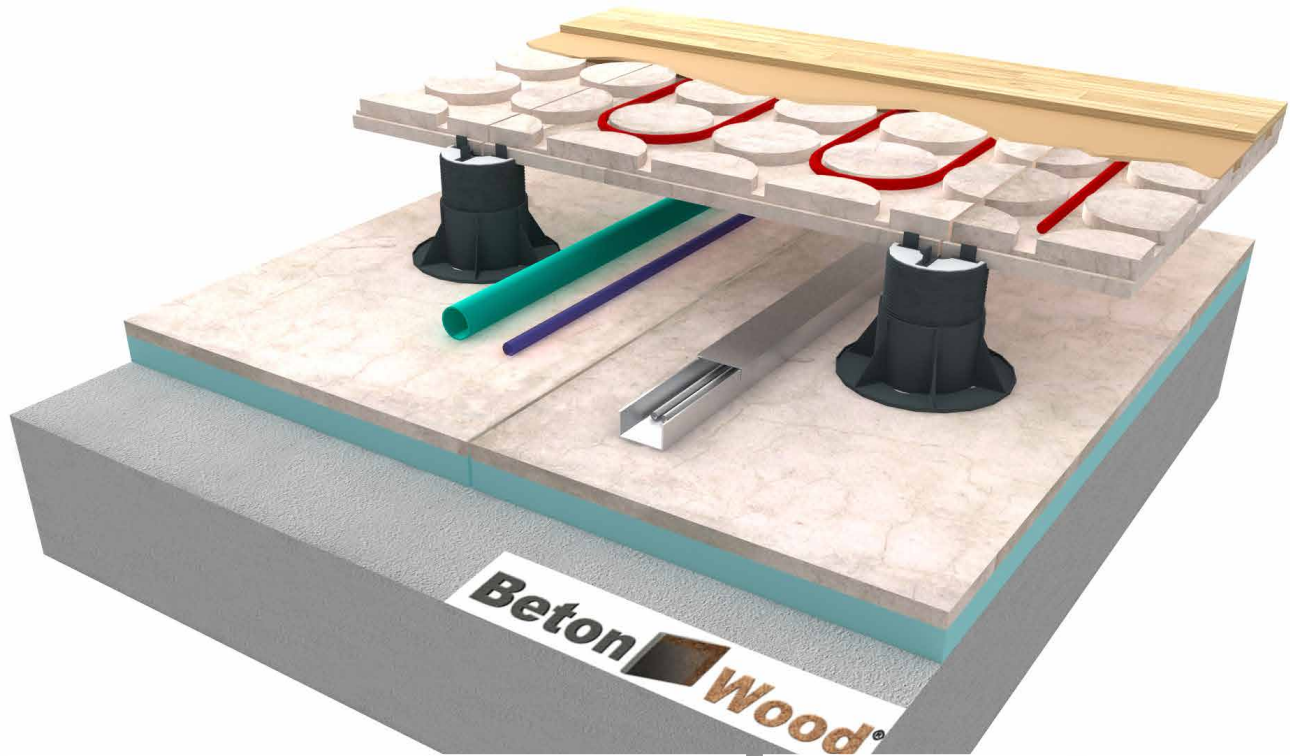


## Elevated radiant screed: betonradiant on betonstyr

Elevated radiant heating floor complete systems on Betonstyr insulating panels, supports and BetonRadiant panels

Complete insulating dry screed system with high performances



### | DESCRIPTION

Elevated radiant heating floor complete system on new and existing grounds with high performances. Elevated radiant floor **betonradiant** on **betonstyr** guarantees the maximum durability over time is guaranteed, with international ETA certification.

The radiant heating floor system in new construction or renovations of existing floors consists in a first layer with cement bonded particle boards coupled with insulating extruded polystyrene **Betonstyr XPS**.

Above a layer of high density, high resistant, modular **Betonradiant** cement bonded particle boards is laid on adjustable supports.

The stratigraphy consists, in order from bottom to top, of:

- insulating **BetonStyr XPS** cement bonded particle boards coupled with extruded polystyrene, with high compression resistance and high density on the existing ground.
- Supports with adjustable height from 25 to 270 mm;
- **Beton Radiant** modular radiant heating panels suitable in floor systems;
- ultra-rapid hardening self-leveling **Betonultraplan** to level and eliminate thickness differences from 1 to 10 mm.

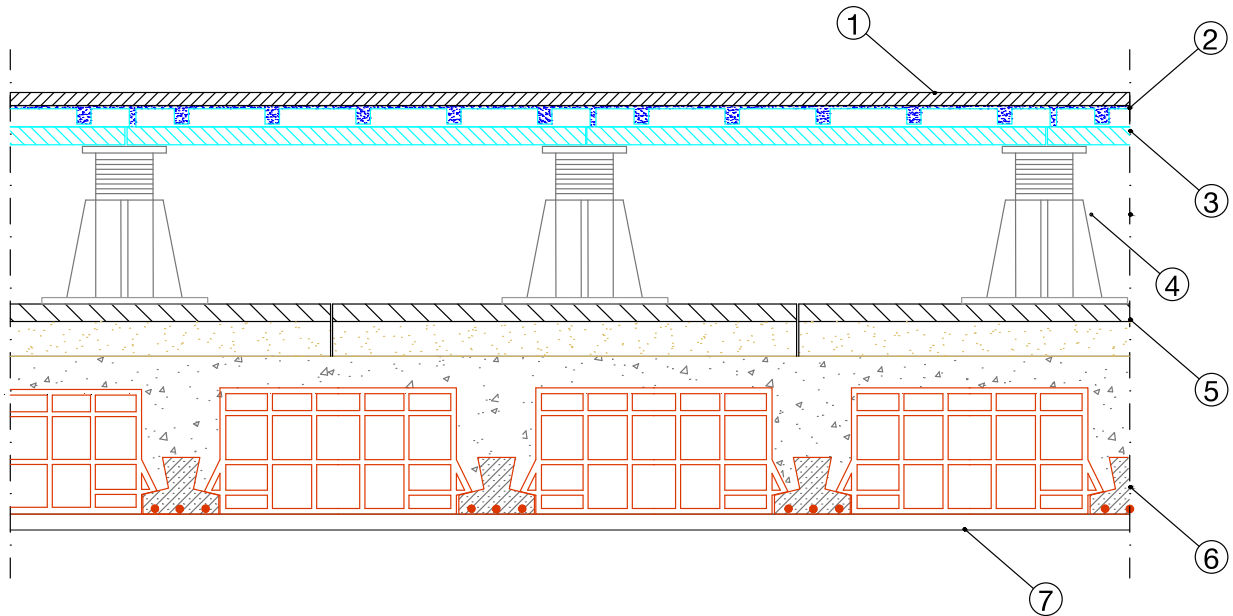
### Advantages

- Excellent breathability of the screed
- Possibility to switch the water, gas and electricity systems under the floor
- Significant impact sound insulation
- Adjustable supports have the advantage of being able to be fixed to the desired height
- It creates a comfortable living climate
- Material CE certified
- The modular **BetonRadiant** system allows to obtain a radiant heating on the whole intervention surface

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 BetonUltraplan is 1.6 kg/m<sup>2</sup> per mm of thickness.
- 3 **Radiant panel Betonradiant** The system is composed of two coupled cement bonded particle boards: one with thickness equal to... mm, is milled for the lodging of the heating pipes with a diameter of ... mm, while the other, with a thickness of... mm, is the lower stiffening layer.The thermo-dynamics characteristics: high density ( $\delta=1350 \text{ Kg/m}^3$ ), coefficient of thermal conductivity  $\lambda=0.26 \text{ W / mK}$ , specific heat  $c=1.88 \text{ KJ / Kg K}$ , coefficient of resistance to vapor penetration  $\mu=22.6$  and fire reaction class A2, according to EN 13501-1.
- 4 **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/m<sup>2</sup> per mm of thickness.
- 5 **BetonStyr xps** BetonStyr XPS rigid insulating panel, ... mm thick, made up of two layers coupled in the factory consisting of a BetonWood cement bonded particle board, high density ( $1350 \text{ Kg / m}^3$ ), and an insulating layer of extruded polystyrene. The cement bonded particle board has the following thermodynamic characteristics: coefficient of thermal conductivity  $\lambda = 0.26 \text{ W / mK}$ , specific heat  $c = 1.88 \text{ KJ / Kg K}$ , coefficient of resistance to vapor penetration  $\mu = 22.6$  and reaction class to A2 fire, according to EN 13501-1. The extruded polystyrene is characterized by the following thermodynamic characteristics: coefficient of thermal conductivity  $\lambda = 0,026 \div 0,036 \text{ W / mK}$ , specific heat  $c = 1,450 \text{ J / Kg K}$ , coefficient of resistance to vapor penetration  $\mu = 50 \div 100$ . Both materials are CE certified.
- 7 **Screed** cement or reinforced concrete
- 8 **Plasterboards or plaster cover**



## SYSTEM'S PRODUCTS



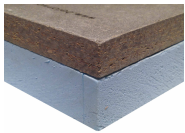
**Betonultraplan** Self-leveling, ultra-rapid self-leveling smoothing. BetonUltraplan mixed with water gives rise to a very smooth mixture, easy to work, perfectly self-leveling, with high adhesion to the substrate and very quick drying. It is applied in thicknesses up to 10 mm for each single hand, without undergoing any shrinkage, without forming 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 mm of thickness.



**BetonRadiant** Beton Radiant is a modular radiant heating system for the construction of radiant floors and consists of two cement bonded particle boards, high density ( $\delta=1350 \text{ Kg/m}^3$ ) and the following termo-dynamics characteristics: thermal conductivity coefficient  $\lambda=0,26 \text{ W/mK}$ , specific heat  $c=1,88 \text{ KJ/Kg K}$ , coefficient of resistance to vapor penetration  $\mu=22,6$  and reaction to fire class A2-fl-s1, according to the standard EN 13501-1.



**Adjustable supports SB** Adjustable Floor Stands have anti-noise rubber head, specific adjustment key, variable heights, pre-cut base for wall corner cutting. Possibility to adjust the height millimetrically (adjustable from 25 to 270 mm), in favor of a perfect leveling of the flooring.



**BetonStyr XPS** Beton Styr XPS is an extremely versatile product as it is suitable for many building applications, because the advantages of two materials are combined in one coupled: on one side a material with a high mass and high compressive strength, the BetonWood cement bonded particle boards high density, indispensable for obtaining an adequate thermal displacement and a great noise reduction, on the other an extruded polystyrene panel characterized by lightness, high insulating capacity and easy processing.

The cement bonded particle board has the following thermodynamic characteristics: density 1350 Kg/m<sup>3</sup>, coefficient of thermal conductivity  $\lambda = 0.26 \text{ W / mK}$ , specific heat  $c = 1.88 \text{ KJ / Kg K}$ , coefficient of resistance to vapor penetration  $\mu = 22.6$  and reaction class to A2 fire, according to EN 13501-1. The extruded polystyrene is characterized by the following thermodynamic characteristics: density 15÷35 Kg/m<sup>3</sup>, coefficient of thermal conductivity  $\lambda = 0,026 \div 0,036 \text{ W / mK}$ , specific heat  $c = 1,450 \text{ J / Kg K}$ , coefficient of resistance to vapor penetration  $\mu = 50 \div 100$ . Both materials are CE certified.

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## CERTIFICATIONS

The elevated radiant heating floor system on adjustable supports, BetonStyr XPS panels and BetonRadiant modulare panels is 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**

