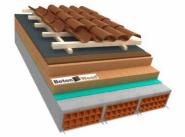


## 16a. ROOFS



## Roof D Bitumfiber - therm and bitumfiber

Ecological roof systems for thermo-acoustic insulation with Therm wood fiber density  $160 \text{ kg/m}^3$  and Bitumfiber wood fiber density  $280 \text{ kg/m}^3$  on concrete

Complete dry system for high-displacement thermal roofs with Fibertherm wood fiber insulation panels and high-density Bitumfiber wood fiber panels on concrete structure. Excellent system for thermo-acoustic insulation of roofs.

STRATIGRAPHY		DESCRIPTION	QUANTITY m²	PRICE €/m²	AMOUNT
1	Roof tiles	Roof tiles			
2	Block-tiles battes	Wooden battens to support tiles, parallel to the eaves line and with a pitch related to the roof tile.			
3	Battens for ventilation	Battens perpendicular to the gutter line directly on the insulating panel, the strips will have suitable fastening all'assito adhesion with the underlying wood, the distance of the strips is to be assessed according to the load of its own structure and the external loading actions. Thanks to the air gap, the air enters the eaves and rises to the surface, absorbing most of the heat produced by the sun's rays.			
4	Anti-steam barrier FiberTherm multi UDB	High airtight sealant vapor barrier for renovation solutions. Extreme ease of installation for safe and simple use. It has an integrated adhesive strip to secure joints and can be used as a temporary cover. Size: 1,50 m x 50 m Roll surface: $75\text{m}^2$ Weight approx.160 g/m <sup>2</sup>			0
5	Bituminous wood fiber Bitumfiber thickness 23 mm	BitumFiber bituminous wood fiber panel is the optimal combination for high strength in dry and wet screed construction. The material is characterized by the following thermodynamic characteristics: density approx. 280 (+20-10) kg/m³, coefficient of thermal conductivity $\lambda$ =0,050 W/mK, coefficient of resistance to vapor penetration $\mu$ =5, specific heat c=2100 J/kg K and reaction to fire class E, according to EN 13501-1 standard, CE certified. The wood used in the processing of the panels comes from forests controlled by FSC reforestation cycles.			0
6	Wood fiber panels Fibertherm 160 (2 layers) available thicknesses: 60+60 mm 80+80 mm 100+100 mm	The panels are made of wood ber with density $\delta$ =160 Kg/m³, are produced with a wet system, in compliance with EN 13171 and EN 13986 standards under constant quality control. The material is characterized by the following thermodynamic characteristics: coefficient of thermal conductivity $\lambda$ =0.039 W/mK, specific heat c=2100 J/Kg K, coefficient of resistance to vapor penetration $\mu$ =5 and reaction to fire class E, according to EN 13501-1 standard. The dimensions are mm for a thickness of mm. The wood comes from forests controlled by FSC reforestation cycles.			0
7	Steam brake FiberTherm multi membra 5	Steam brake for better airtightness on the outer side of the roof, resistant to UVrays, excellent adhesion properties and tear resistance.  Size: 1,50 mx50 m Roll surface: 75m² Weight approx.110 g/m²			0
8	Concrete roof	Concrete structure with slats and hollow bricks   thickness 200+40 mm			
		TAX IVA 22%	0	TAXABLE	0
TOTAL AMOUNT				0	

Beton Wood®

The functionality of the system will be covered by a BetonWood guarantee for the characteristics of air tightness, water proofing and isolation of the technological package. The warranty will be documented with the appropriate Certificate and Certificate of Assurance that will be delivered at the end of the work to the DD.LL. from the same layer. The forms are available on the BetonWood website as well as the technical indications, the application matrix and the exclusion clauses.