

Expanded insulation corkboard

Natural materials for technical solutions

Description

The EXPANDED INSULATION CORKBOARD is a sustainable material for sustainable construction. 100% natural process in which only cork is used as raw material. Solution with high performance in thermal, acoustic and anti-vibration insulation, especially suitable for use in external and internal walls, slabs and floors, roofs and ceilings.

Advantages

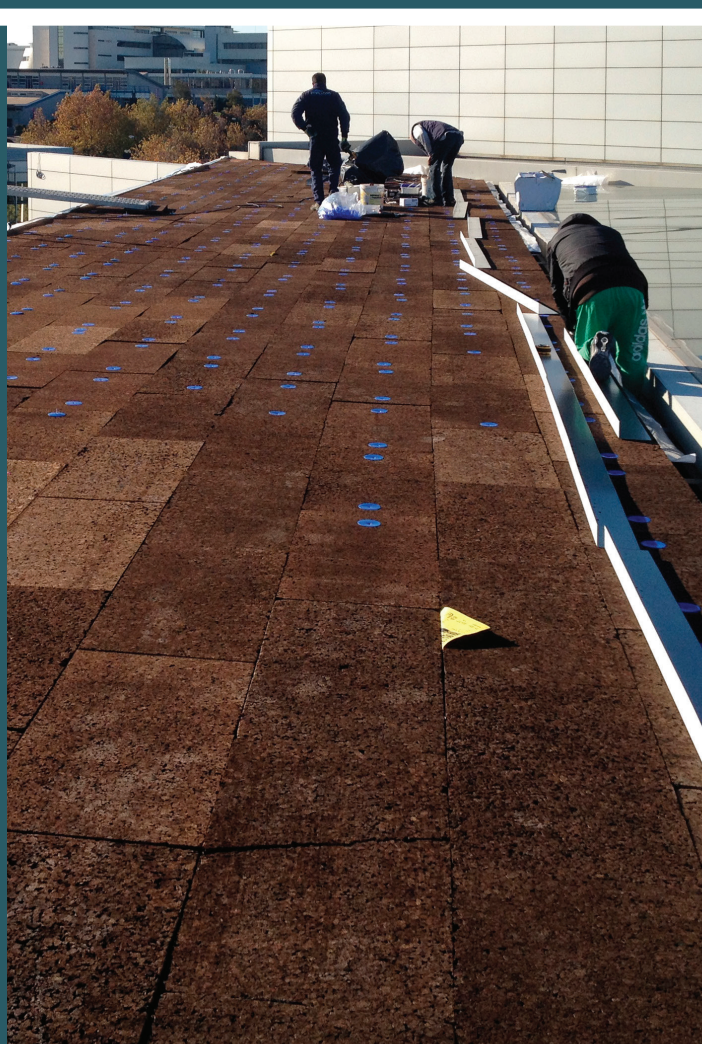
- 100% natural and fully recyclable
- Very low embodied energy
- CO₂ sink (Carbon Negative)
- Excellent thermal, acoustic and anti-vibration insulation
- Mechanical stability
- Almost unlimited durability, keeping technical features
- Promotes thermal lag
- Indoor Air Quality A+
- Permeability to water vapor

Product lines

- Board dimension: 1000 x 500 (mm)
- Thickness up to 300 (mm)
- Option: Overlapping system

Product specifications

- Density: 110 kg/m³ (+/- 20 kg/m³)
- Thermal Conductivity: 0,039 W/m.k



Main application systems

Roofs



Floors



External walls



Internal partitions



Ceilings



TECHNICAL CHARACTERIZATION

Declared performance: ICB - EN 13170 - L2 - W2 - T2 - CS(10)100 - TR50 - WS - MU20 - CC(0,8/0,4/10)5 - AFR35

Essential characteristics

Performance Harmonised technical specification EN 13170: 2012

Reaction to fire, Euroclass characteristics	Reaction to fire	Euroclass E
Thermal resistance	Thermal resistance	see Table A
	Thermal conductivity	0,039 W/m.K
	Thickness, d_t	T1 - T2 ($d > 50\text{mm}$)
Water permeability	Water absorption	WS
Water vapour	Water vapour transmission	MU20
Compressive strength	Compressive stress at 10% deformation	CS (10) 100
Durability of reaction to fire against heat, weathering, ageing/degradation	Durability characteristics	Satisfy
Durability of thermal resistance against heat, weathering, ageing/degradation	Thermal resistance and thermal conductivity	Satisfy
	Durability characteristics	Satisfy
Tensile/Flexural strength	Tensile strength perpendicular to faces	TR60 (25-60mm)
		TR50 (65-300mm)
Durability of compressive strength against ageing/degradation	Compressive creep	CC (0,8/0,4/10)5

Table A

Thermal Resistance (R) in accordance with EN 13170: 2012+A1: 2015

Thickness, d_t [mm]	20	25	30	35	40	45	50	55	60	65	70	75	80
Thermal resistance [$\text{m}^2 \cdot \text{K}/\text{W}$]	0,50	0,60	0,75	0,90	1,00	1,15	1,25	1,40	1,50	1,65	1,75	1,90	2,05
Thickness, d_t [mm]	85	90	95	100	110	120	130	140	150	160	170	180	190
Thermal resistance [$\text{m}^2 \cdot \text{K}/\text{W}$]	2,15	2,30	2,40	2,55	2,80	3,05	3,30	3,55	3,85	4,10	4,35	4,60	4,85
Thickness, d_t [mm]	200	210	220	230	240	250	260	270	280	290	300		
Thermal resistance [$\text{m}^2 \cdot \text{K}/\text{W}$]	5,10	5,35	5,60	5,90	6,15	6,40	6,65	6,90	7,15	7,40	7,65		

Amorim Cork Insulation

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