

# NATURAL MATERIALS FOR TECHNICAL SOLUTIONS

# EXPANDED INSULATION CORKBOARD

## 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, internal and cavity walls; slabs; flat and pitched roofs and radiant floor.

## 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: 1000x500 (mm)
- > Thickness up to 300 (mm)
- > Option: Overlapping system

## PRODUCT SPECIFICATIONS

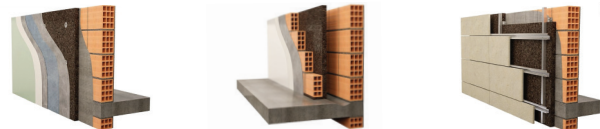
Test	Result
Density	110-120 kg/m <sup>3</sup>
Thermal Conductivity	0,036/0m038 W/mk (declared 0,040 W/mk for EU label)

## MAIN APPLICATION SYSTEMS

### > ROOFS



### > EXTERNAL WALLS



### > INTERNAL PARTITIONS



### > FLOORS



### > 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
Reaction to fire, Euroclass characteristics	Reaction to fire	Euroclass E	EN 13170:2012+ A1:2015
Release of dangerous substances to the indoor environment	Release of dangerous substances	NPD	
Acoustic absorption index	Sound absorption	NPD	
Impact noise transmission index (for floors)	Dynamic stiffness	NPD	
	Thickness, $d_L$	NPD	
	Compressibility	NPD	
	Air flow resistivity	AFr35	
Direct airborne sound insulation index	Air flow resistivity	AFr35	
Continuous Glowing combustion	Continuous Glowing combustion	NPD	
Thermal resistance	Thermal resistance	see Table A	
	Thermal conductivity	0,040 W/m.K	
	Thickness, $d_L$	T1 - T2 ( $d_L > 50\text{mm}$ )	
Water permeability	Water absorption	WS	
Water vapour	Water vapour transmission	MU20	
Compressive strength	Compressive stress at 10% deformation	CS (10) 100	
	Point load	NPD	
Durability of rection 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	TR50	
Durability of compressive strength against ageing/degradation	Compressive creep	CC (0,8/0,4/10)5	

NPD - No Performance Determined

Table A: Thermla Resistance (R) in accordance with EN 13170:2012+A1:2015

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