NATURAL INSULATION CORKBOARD

CORKSRIBAS
www.corksribas.pt
PRODUCT FROM PORTUGAL

Thermal & Acoustic Natural Insulation Corkboard

Nature's own unbeatable insulation material. The cells which make up cork (some 40 million in each cm^3) combine a minimum amount of solid matter with a maximum amount of air. Another feature is the make-up of the cell walls. Each wall consists of five layers: two cellulose layers which enclose the air filled chamber of the cell, two thicker layers, hard and impermeable to water and a final ligneous layer which gives rigidity to the entire structure.

Natural insulation corkboard is manufactured from the bark of the cork oak tree. The raw material is first granulated and then mixed with binder and compressed into blocks. The agglomerate blocks are then cut into boards.

Natural insulation corkboard resists the action of hydrocarbons and can easily be cut to ensure a clean fitting job with savings in time and money.

Natural insulation corkboard is chemically inert and highly resilient.

It is not subject to mould growth and its insulating power does not deteriorate with the passing of time.

If this material is fixed, for instance, on the walls or ceiling in the work place, it will not be affected by UV radiation.

Natural insulation corkboard neither conducts electricity nor accumulates static electricity.

Natural insulation corkboard is only slightly inflammable and is rated to class B1 after treatment with fireproofing products. During combustion it does not release either chlorine or cyanide.

Main uses: Roof, loft, interior, exterior and flooring insulation (acoustic, thermal & anti vibration)

Technical Features of Natural Insulation Corkboard

Density	around 120 Kgm3
Thermal conductivity (20º)	0,040 W/mºC
Tensile strength on board surface	0,094 N/mm2
Transverse strength	0,14-0,2 N/mm2
Compressive strength	0,2 N/mm2
Limit of compressibility	1N/mm2
Compressive stress for 10% of compression DIN 18161 Part 1	0,178 N/mm2
Specific heat	1,67 kj/kgºC
Resistance to diffusion of water vapour	u5-30
Working temperature	-200ºC +80/100ºC
Dynamic rigidity (for a thickness of 50mm)	125 N/cm3
Modus of elasticity	5 N/mm2
Vapour conductivity	0,017-0,003 g/mh mm
Coefficient of thermal expansion (20ºC)	25 to 50 x 10^{-8}
Dimensional stability	stable:does not contract
Does not desintegrate in boiling water (3 hour test)	expands
Available dimensions	1000x500mm / 37"x25"
Available thicknesses	10 to 320mm

Thermal insulation values for Natural Insulation Corkboard (R in m2 K/W and k in W/m2K)

Thick	10 mm	20 mm	30 mm	40 mm	50 mm	60 mm	70 mm	80 mm	90 mm	100 mm
R (resistance)	0,244	0,488	0,732	0,976	1,22	1,463	1,707	1,951	2,195	2,439
K (conductivity)	2,439	1,529	1,114	0,876	0,722	0,614	0,534	0,472	0,424	0,384

Natural Insulation Corkboard is a bad thermal conductor, therefore a good insulation material.

Natural Insulation Corkboard has a low coefficient of thermal conductivity, high thermal resistance for a low thickness.

Products manufactured by:

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