

CORKTHERM

Description:

semi-rigid expanded insulation cork board

Density Grades:

Standard, 7-7.5 lb/ft³ - 110-120 kgs/m³ MD Facade 9-10 lb/ft³ -140-160 kgs/m³, Antivibratic 11-12 lb/ft³ - 170-190 kgs/m³

R Value per inch (25.4mm):

declared values: λ 0.040, RSI= 0.635, R (US)=3.61
(test results: λ 0.0036, RSI= 0.706, R (US)=4.01)

Maximum durability after production:

Practically unlimited



length: 1000mm (±0.5mm)*
width: 500mm (±0.5mm)*

*dimensional tolerances:

TECHNICAL CHARACTERISTICS	TESTING RESULTS
Density	100/120 Kg/m ³ (Standard) 140/160 Kg/m ³ (MDFacade) 170/190 Kg/m ³ (Antivibratic)
Thermal conductivity	0.036/0.038 W/mk
Value declared for EU label	0.040 W/mk
Resistance to compression at 10%	declared 100KPa (test results 110/120 KPa) EN 826
Perpendicular face resistance	declared TR50 KPa (test results 60 KPa) EN 1607
Level of humidity	maximum 8% EN 1215
Water absorption	declared 0.5 Kg/m ² (maximum test result 0.3 Kg/m ²)EN 1609
Longitude tolerance	between +/- 3 y 5mm EN 822
Thickness tolerance	between +/- 1 y 2mm EN 823
Fire resistance	Euro class E EN 13501-1
Durability	Practically Unlimited
Recyclable	100 %
Impact Noise	20 dB LF 40dB MF 30dB HF
Air Noise	30db LF - 35db MF- 34dB HF
50mm Sound absorption	40% at 400Hz/50Hz to 3500%
Sound speed on cork	500 m/second
Sound absorption coefficient 500 CPS	0.33/0.35

PRODUCTION PROCESS

Total area (Portugal) 735,000 hectares. The cork tree produce cork every nine years (a renewable raw material). Avoids soil desertification. Provides local employment in the forestry sector hence prevents population desertification. Important in maintaining biodiversity (unique in Europe). Portuguese forests (cork oaks) trap 5 million tons of CO2 every year. Only uses cork as a raw material with no additives, agglomerate of its own resins (suberin). 90% of the energy consumed is biomass (a by-product of its own industrial processing). Any wastage from the industrial process is 100% reusable (cork and dust granules). In case of fire, cork does not release toxic gases. Unlimited durability, maintaining its technical characteristics (official tests demonstrate between 45 and 50 years). Totally recyclable after utilisation. It may again be reused in construction applications.

QUALITY CONTROL

Conforms to EN 13170 + EN 13172. Thermal conductivity tested by the independent laboratories: CSTB (France) and LNEC (Portugal). Industrial quality / Quality control by CSTB (twice annually). **Other certifications (in addition to EN 13170)** MPA Stuttgart-Otto-Graf-Institut (quality verification). ARGE KOR-Zertifikat no. - Ro700144 "R" green 100% vegetal. AC ERM I by CST_B, France (Industrial and quality control). High level of stability and coping with major thermal variations. Deals with temperatures of between: (-) 180° C and (+) 120° C.