

CETRIS® PDP

Cement bonded particleboard with half-lap for lightweight floating floors

CETRIS® PDP is a cement bonded particleboard with a smooth surface, fitted with a 45 mm wide half-lap all round. It is made by pressing a mixture of wood chips (19 wt %), Portland cement (69 wt %), water (10 wt %) and hydration additives (2 wt %), followed by cutting and milling. Calibration reduces the thickness tolerance to ± 0.3 mm. The boards are supplied in the sizes 1,200 × 600 mm – 1,250 × 1,000 mm, in the 22 mm thickness, and have a half-lap all round.

They are intended primarily for lightweight floating floors, for laying on insulation.

Cement bonded particleboards are intended primarily as a construction material where moisture resistance, strength, incombustibility and environmental and hygienic safety are required at the same time. CETRIS® boards contain neither asbestos nor formaldehyde and are resistant to insects and mould. They are non-combustible and sound-insulating.

Technical specification

Basic size	1,200 × 600 mm – 1,250 × 1,000 mm (including the half-lap)
Board thicknesses	22 mm
Density	1,150–1,500 kg/m ³
Machining to customer requirements	to customer requirements, edges milled with a half-lap, width 45 mm
Thickness tolerance	± 1.5 mm
Surface treatment	without surface treatment

Basic physical and mechanical properties

Property	Standard limit values	Measured mean values
Density according to ČSN EN 323	min. 1,000 kg/m ³	1,350–1,500 kg/m ³
Bending tensile strength according to ČSN EN 310	min. 9.0 N/mm ²	min. 11.5 N/mm ²
Modulus of elasticity according to ČSN EN 310	min. 4,500 N/mm ²	min. 6,800 N/mm ²
Tensile strength perpendicular to the board plane according to ČSN EN 319	min. 0.5 N/mm ²	min. 0.63 N/mm ²
Internal bond after cycling in humid conditions according to ČSN EN 321	min. 0.3 N/mm ²	min. 0.41 N/mm ²
Reaction to fire according to EN 13501-1		A2-s1,d0
Surface flame spread index according to ČSN 73 0863		i = 0 mm/min
Thickness swelling after 24 hours of water immersion	max. 1.5 %	max. 0.28 %
Thickness swelling after cycling in humid conditions according to ČSN EN 321	max. 1.5 %	max. 0.31 %
Linear expansion at a moisture change from 35 % to 85 % at 23 °C according to ČSN EN 13009		max. 0.122 %
Water absorption after 24 hours of water immersion		max. 16 %
Coefficient of thermal expansion according to ČSN EN 13471		$10 \times 10^{-6} \text{ K}^{-1}$
Thermal conductivity according to ČSN EN 12664, thickness 8–40 mm		0.200–0.287 W/mK
Airborne sound insulation according to ČSN 73 0513, thickness 8–40 mm		30 dB – 35 dB

Property	Standard limit values	Measured mean values
Vapour diffusion resistance according to ČSN EN ISO 12572, thickness 8–40 mm		52.8 – 69.2
pH of the board material		12.5
Specific activity of Ra 226	150 Bq/kg	22 Bq/kg
Activity index	I = 0.5	I = 0.21
Resistance to high-voltage, low-current arc discharge according to EN 61621		thickness 10 mm, min. 143 s
Coefficient of sliding friction according to ČSN 74 4507		static $\mu_s = 0.73$ dynamic $\mu_d = 0.76$
Equilibrium moisture content at 20 °C and 50 % relative humidity according to EN 634-1	9 ± 3 %	9.50 %

Dimensional tolerances

Property	Board thickness	Requirement
Length and width, basic size	16–30 mm	±5.0 mm
Cutting accuracy in length and width	16–30 mm	±3.0 mm
Edge straightness tolerance	16–30 mm	1.5 mm/m
Squareness tolerance	16–30 mm	2.0 mm/m

Appearance

Parameter	Quality class I
Deviation from right angle	max. 2 mm/1 m length
Permitted edge damage	max. up to 3 mm depth
Protrusions in the surface	max. 1 mm, size 10 mm
Depressions	max. 1 mm, size 10 mm

The ČSN designations refer to the Czech national editions of the respective European standards and have been kept as in the manufacturer's original. Where a harmonised EN standard exists, its Swedish edition is SS-EN with the same number.