Technical Data Sheet (TDS)

CETRIS® PDB

CETRIS® PDB tongue-and-groove cement-bonded particleboard has a smooth surface and is calibrated by grinding; it is produced by pressing a mixture of wood chips (63% vol.), Portland cement (25% by volume), water (10% vol.), and moisturizing ingredients (2% vol.), followed by cutting and milling. The adjustment reduces thickness tolerance to +/- 0.3 mm. The boards are manufactured in a standard format 1,250 x 625 mm, thickness 16, 18, 20, 22, 24, 26, 28mm (on the basis of agreement 30-32-34-36-38mm), and with keyed circumference. Primarily, they are designed for dry floor technology, i.e. for installation on beams or renovating of old floors. They are also ideal as a base under a loosely deposited thin floor covering. The cement-bonded particleboard are used mainly as a structural material in cases where moisture resistance, strength, fire resistance, ecological and hygienic harmlessness are required at the same time. CETRIS® Boards do not contain either asbestos or formaldehyde; they are resistant to insects and mold exposure. They are fireproof and can provide sound insulation.

Technical specifications:

basic size:	1,250 x 625 mm (including the tongue)
board thicknesses:	16-18-20-22-24-26-28mm (on the basis of agreement 30-32-34-36-38mm)
Bulk density:	1,150-1,450 kg/m3
service: to customer's requirements.	milled edges with tongue and groove
thickness tolerance:	+-0.3 mm
surface finish:	without surface finish

Table of basic physical and mechanical properties of CETRIS® cement-bonded particleboards:	Limit values according to standard	Mean values - real
Bulk density acc. to EN 323:	min. 1,000 kg/m3	1,350 kg/m3
Bending tensile strength acc. to EN 310	min. 9.0 N/mm2	min. 11.5 N/mm2
Modulus of elasticity acc. to EN 310	min. 4,500 N/mm2	min. 6,800 N/mm2
Tensile strength perpendicular to the board plane acc. to EN 319	min. 0.5 N/mm2	min. 0.63 N/mm2
Internal bond after cycling in a humid environment according to EN 321	min. 0.3 N/mm2	min. 0.41 N/mm2
Reaction to fire acc. to EN 13 501-1		A2-s1, d0
Index of flame propagation along the surface acc. to the Czech standard ČSN 73 0863		i = 0 mm/min
Thickness swelling when stored in water for 24 hours	max. 1.5 %	max. 0.28 %
Thickness swelling after cycling in a humid environment according to EN 321	max. 1.5 %	max. 0.31 %
Linear expansion with changes in humidity from 35% to 85% at 23 °C according to EN 13 009		max. 0.122 %
Water absorption by the board when stored in water for 24 hours		max. 16 %
Thermal expansion coefficient acc. to EN 13 471		10 × 10-6 K-1
Coefficient of thermal conductivity acc. EN 12 664; thickness 8 to 40 mm		0.200 - 0.287W/mK
Airborne sound insulation according to Czech standard CSN 73 0513, th.8 to 40mm		30 dB – 35 dB
Diffusion resistance factor according to DIN EN ISO 12572, th.8 to 40		52.8 – 69.2
pH of the board material		12,5
Mass activity Ra 226	150 Bq/kg	22 Bq/kg
Mass activity index	I = 0.5	I = 0.21
Resistance to arc discharge of high voltage according to EN 61 621		th. 10mm, min.143 sec
Shearing friction coefficient acc. to the Czech standard ČSN 74 4507		Static μs = 0.73
		dynamic μd = 0.76
Mass balanced humidity at 20° and a relative humidity of 50% according to EN 634-1	9 ±3 %	9.50%

Dimensional tolerance:

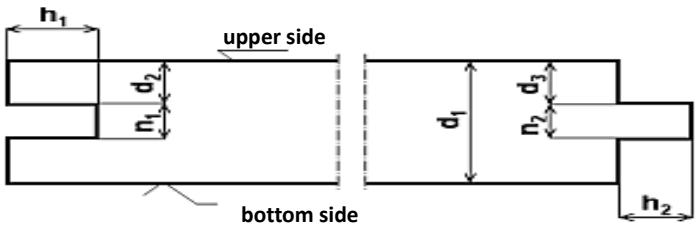
Feature	Board thickness	Requirement
Length and width of the basic format	16-28mm	±5.0 mm
Precision of cutting the length and width	16-28mm	±3.0 mm
Edge straightness tolerance	16-28mm	1.5 mm/m
Rectangularity tolerance	16-28mm	2.0 mm/m

Appearance:

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

Sizes of tongue and groove (all data in mm)

d1	16	18	20	22	24	26	28
n2	5,5	5,5	5,5	5,5	7	7	7
n1	6	6	6	6	8	8	8
d2	5	6	7	8	8	9	10
d3	5,25	6,25	7,25	8,25	8,5	9,5	10,5
h1	10	10	10	10	10	10	10
h2	8,5	8,5	8,5	8,5	8,5	8,5	8,5



Dimension	Tolerance	Dimension	Tolerance
d2	± 0.5	d3	± 0.5
n1	0 / +0.5	n2	− 0.5 / 0
h1	0 / +2	h2	− 2 / 0

Board size for types PD and PDB, without tongue – 617 x 1242mm