Technical Data Sheet (TDS)

CETRIS® PDI

CETRIS® PDI is a sandwich board that consists of a 22 mm CETRIS® cement particle board bonded with a 12 mm insulation fibreboard. CETRIS® PD cement-bonded particleboard 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 entire panel is milled, and the perimeter is keyed. The board surface is smooth. The panel CETRIS ® PDI with dimensions of 1,220 x 610 mm (including the tongue) is designed for dry flooring and is produced only in the thickness of 34 mm. Boards have tongue and groove features on the sides and are designed for laying on an even, flat base (ceiling structure, floor joists). 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. The boards can be worked with conventional woodworking tools.

Technical specifications:

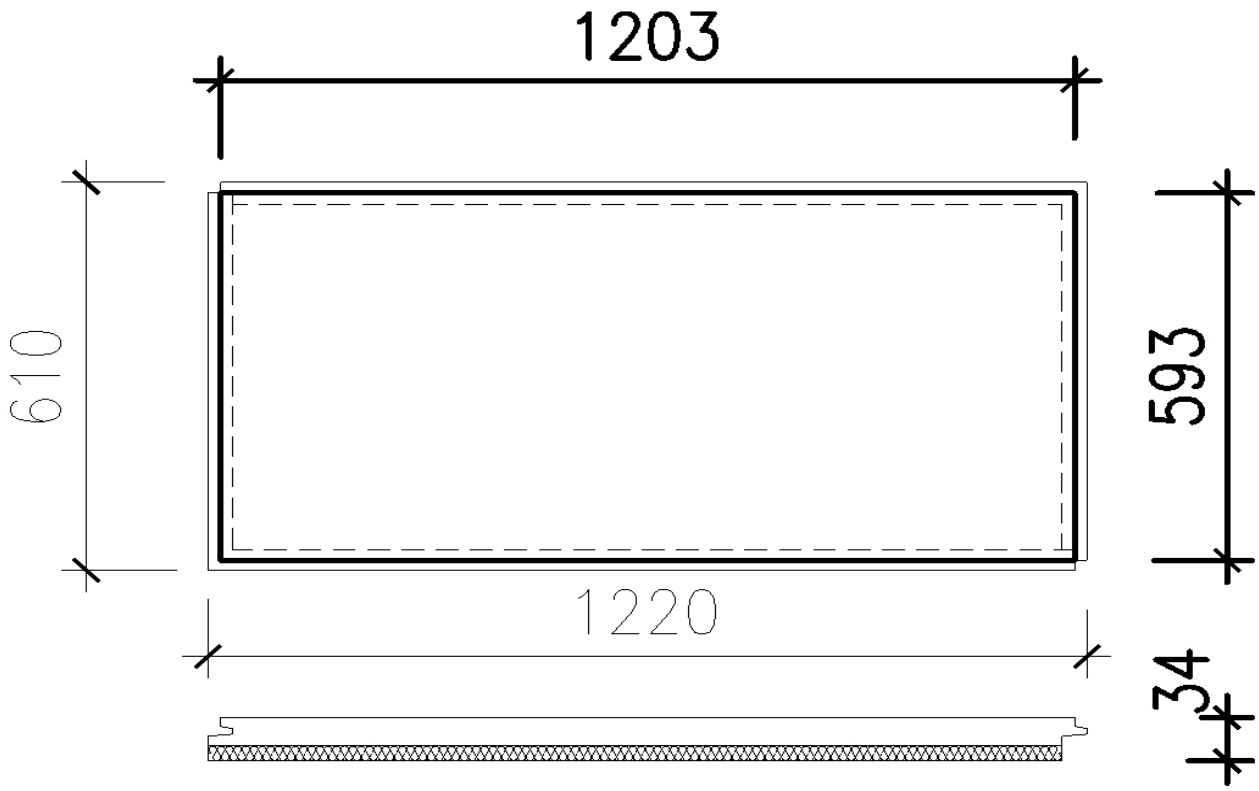
basic size:	1,220 x 610 mm (including tongue), after lazing 1,203 x 593 mm
Panel area :	after laying: 0.713 m2
board thickness:	34 mm
area density:	ca. 33.5 kg/m2
Panel weight:	ca. 24 kg/m2
service:	milled edges, tongue and groove
thickness tolerance:	±1.5 mm
surface finish:	without surface finish

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
Resistance to frost at 100 cycles according to EN 1328	R_L > 0.7	R_L = 0.97
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
Surface resistance to water and chemical de-icing agents acc. to Czech standard CSN 73 1326	Waste after 100 cycles max. 800 g/m2 (Method A)	Waste after 100 cycles max. 20.4 g/m2 (Method A)
	Waste after 75 cycles max. 800 g/m2 (Method C)	Waste after 100 cycles max. 47.8 g/m2 (Method C)

Table of basic physical and mechanical properties of CETRIS® cement-bonded particleboards:	Limit values according to standard	Mean values - real
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%

Technical specification of the fibreboard:

Thickness	12mm
area density:	240 kg/m3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