Technical Data Sheet (TDS)

CETRIS® PROFIL LASUR

CETRIS® PROFIL LASUR is a cement-bonded particleboard with embossed surface imitating the texture of wood or slate and it is treated with pigmented primer paint and a varnish glazing as the colour top coat. It is produced by pressing a mixture of wood chips (63% by volume), Portland cement (25% vol), water (10% vol), and hydration additives (2% by volume); it is available in standard thicknesses of 10 and 12mm. The glazing top coat provides a solid but non-uniform appearance. The basic size of the board is 3,350 x 1,250 mm. We deliver the boards cut to the sizes specified by the customer, milled boards with thickness of 12 mm rebated. The boards may also be delivered with pre-drilled holes. Thanks to its decorative look, the CETRIS® PROFIL LASUR boards are primarily used as facade walling boards in exteriors and interiors. 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. The back side of CETRIS® PROFIL LASUR cement bonded particle boards is treated with primer coat without a regular texture, look and sufficient covering power. The colour shade of the coat is not specific, therefore the requirement for a white or transparent shade needs to be specified in the order in advance.

Technical specifications:

basic size:	3,350 x 1,250 mm
board thicknesses:	10, 12 mm
Bulk density:	1,150-1,450 kg/m3
embossing:	wood and slate
service: to customer's requirements.	cutting, drilling holes, shrinkage, milling
shades:	according to the colour chart* CETRIS ® LASUR (twelve colours)
surface finish:	pigmented primer, varnish glazing top coat

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)
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
Thickness of uncut board	10 mm	±0.7 mm
	12 mm	±1.0 mm
Length and width of the basic format		±5.0 mm
Precision of cutting the length and width		±3.0 mm
Edge straightness tolerance		1.5 mm/m
Rectangularity tolerance		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