

CETRIS® AKUSTIC FINISH

Perforated cement bonded particleboard with primer and top coat

CETRIS® AKUSTIC FINISH is a cement bonded particleboard with pre-drilled holes and a smooth surface, provided with a primer and a final finish. It is made by pressing a mixture of wood chips (19 wt %), Portland cement (69 wt %), water (10 wt %) and hydration additives (2 wt %), cutting, the drilling of regular holes and the application of a primer and a final finish.

The shade is chosen from the RAL and NCS colour charts. Pearlescent, reflective, metallic and poorly covering shades must be excluded (consultation with the manufacturer is recommended). The basic board size is 1,250 × 625 mm, thickness 8 and 10 mm.

The drilling of regular holes achieves, in addition to the existing high mechanical values, improved acoustic properties as well. CETRIS® AKUSTIC FINISH acts as an absorbing acoustic cladding and, compared with other acoustic cladding materials, the CETRIS® AKUSTIC cement bonded particleboard provides high resistance to mechanical penetration (by a ball, for example) and to moisture – all this while retaining good reaction-to-fire performance, class B-s1,d0 to EN 13501-1.

These parameters make this board type suitable above all for sports facilities, spaces with variable temperature and humidity and buildings with specific requirements. CETRIS® boards contain neither asbestos nor formaldehyde and are resistant to insects and mould. The boards can be worked with ordinary woodworking tools.

Technical specification

Basic size	1,250 × 625 mm
Board thicknesses	8, 10 mm (by agreement 12, 14, 16, 18 mm)
Density	1,150–1,500 kg/m ³
Weight per unit area	thickness 8 mm – 10 kg/m ² , thickness 10 mm – 12.5 kg/m ²
Surface	smooth
Surface treatment	primer and top coat
Colour	according to the RAL and NCS colour charts (check the suitability of the shade with the manufacturer)
Perforation	drilled holes – diameter 12 mm, hole spacing 30 – 32 mm

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
Ball impact resistance class according to EN 13964		thickness 8 mm – class 3A (speed 4 m/s) thickness 10 mm – class 2A (speed 8 m/s)
Mean sound absorption coefficient		0.61 – 0.69 (depending on the assembly)
Reaction to fire according to EN 13501-1		B-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 %

Property	Standard limit values	Measured mean values
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 %
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
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
Thickness, unsanded board	8 mm, 10 mm	±0.7 mm
	12 mm, 14 mm	±1.0 mm
Length and width, basic size		±5.0 mm
Cutting accuracy in length and width		±3.0 mm
Edge straightness tolerance		1.5 mm/m
Squareness tolerance		2.0 mm/m
Hole spacing tolerance		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. Boards with a surface finish are class B-s1,d0 (EN 13501-1, report FIRES-CR-045-23-NURS); the original's wording "non-combustible" in the running text has been corrected.