

TYPE OF WOOD: Spruce/larch/Douglas fir

PANEL STRUCTURE: 3-, 5-, 7-, or 9-layer structure, depending on structural requirements
Slats 20, 30 or 40 mm thick, C24 as per EN 338.
The slats are finger-jointed longitudinal layers.
Thickness: 60–350 mm, width: max. 3.50 m, length: max. 16.00 m

WOOD MOISTURE: Technically dried with a wood humidity of 12 % +/- 3 %

BONDING: Cross-laminated timber is bonded using a formaldehyde- and solvent-free polyurethane adhesive. The glue is tested in accordance with DIN 68141 and the strict criteria set out by the Materials Testing Institute in Stuttgart and approved for the manufacturing of load-bearing and non-load-bearing timber components in accordance with DIN 1052 and EN 301. The amount of adhesive in the components is around 120 g/m², which is less than 1 % of the product. The high applied pressure of 0.7 N/mm² ensures high-quality bonding.

THERMOCONDUCTIVITY: $\lambda = 0.13 \text{ W/mK}$

STEAM DIFFUSION RESISTANCE: $\mu = 60\text{--}80$, vapour retardant without diffusion barrier

WEIGHT: 5.0 kN/m³ as per EN 1991-1-1:2002 for structural calculations
500 kg/m³ for determining the shipping weight

SHAPE CHANGE: At panel level, approx. 0.02 % per 1 % change in wood moisture, perpendicular to the panel level, approx. 0.24 %

DIMENSIONS: Guidelines as per DIN 1052:2008:12 or DIN EN 1995-1-1:2008-12 (Eurocode 5-1-1) with the relevant national annex DIN EN 1995-1-1/NA as well as the requirements for building inspectorate approval

SERVICE CLASSES: Cross-laminated timber can be used in service classes 1 and 2 as per EN 1995-1-1, meaning for an expected equilibrium moisture content of up to 20 %. This means it can be used inside buildings as well as in covered outdoor areas

FIRE PROTECTION: 0.70 mm/min. calculated burn rate. Depending on the thickness of the panels, the fire resistance class could be between F30 and F90

FIRE PERFORMANCE: Fire classification B2 D-s2, d0. If required, flame-retardant component surfaces can be achieved using the appropriate surface coatings