



CUMARU

Source

FSC Cumaru is available in the forests of Precious Woods, located in the Amazon region of Brazil. The trees have straight trunks which attain diameters till about 120 cm and normally little defects, which makes it possible to produce also larger dimensions. The sapwood is just a few cm wide. The so called Tonka beans from this tree are used as an alternative for vanilla.

Appearance

The heartwood is yellow brown to red brown often with darker (red) veins and is clearly demarcated from the sapwood. It has a greasy touch and a mild vanilla-like smell. The grain is often interlocked and the texture is medium coarse.

Processing properties

Despite the high density and the interlocked grain, Cumaru can be machined quite well, resulting in a rather smooth surface. Pre-drilling is necessary. Finishing is reported to be good, however it is not easy to glue the heavy timber. The GluGreen® Technology could successfully be applied to green sawn timber. Drying goes slowly with low shrinkage and less risks of warping or checking.

Application

Cumaru is used for a wide spread of applications in high quality end uses, like park benches, cladding, boardwalks and sound barriers. Due to the available dimensions and high strength it is also used for truck flooring, heavy hydraulic constructions like lock doors and brakers, and for the construction sector.

Technical properties

Green density	1.200 kg/m ³
Density (at 12%)	1.070 kg/m ³
Shrinkage green – oven dry	5,7% radial; 7,4% tangential
Shrinkage green – 65% RH (abt. 12% EMC)	2,0% radial; 2,6% tangential
Swelling between 50-90% RH	1,7% radial; 2,4% tangential
Equilibrium Moisture Content (EMC)	11,9% (at 65% RH water desorption) 15,0% (at 95% RH water adsorption)
Fibre Saturation Point (FSP)	22%
Durability according to EN 113 (without soil contact)	Heartwood class 1
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Bending strength, MOR (defect free samples)	199 N/mm ²
Modulus of elasticity, MOE (defect free samples)	22.000 N/mm ²
Shear strength (defect free samples)	14,5 N/mm ²
Janka hardness	11.100 N (transversal); 15.700 N (parallel)
Strength class (EN 338)	D60 *)
Fire resistance flooring (EN 13501-1)	Cfl-s1
Chemical composition	Cellulose: 48,4%; Hemicellulose: 17,8%; Lignine: 33,8%
<i>The figures in this table are mainly indicative, unless a specific standard is mentioned, which provides exact figures.</i>	
*) This value is only valid for Cumaru from the Precious Woods Amazon source.	

References

This information is based on research (mainly independent) and experience of Precious Woods, (semi-) scientific literature and the (Dutch) Houtvademecum (10th edition 2010).