



PIQUIA

Source

FSC Piquia is available in the forests of Precious Woods located in the Amazon region of Brazil. The large trees have diameters up to 1,5-2 m and attain heights up to 45 m. The clear trunks have a length till 21 m. It is possible to produce larger dimensions in sawn wood.

Appearance

The heartwood has a whitish yellow to grey brown color with sometimes a little stripy pattern. It shows a coarse structure due to the interlocked grain. The sapwood can not be distinguished easily. Freshly sawn timber has a mild vinegar-like odour, which disappears after drying. Sometimes, the grain is irregular or curved and often interlocked. The texture is medium coarse to coarse.

Processing properties

Machining of Piquia can be done well, but hard metal tools are recommended (because of interlocked grain and a blunting effect on the tools). Pre-drilling is recommended. There is little experience regarding the gluing and finishing. Piquia dries slowly with a tendency to checking and deformation.

Application

Piquia is mainly used in exterior constructions like bridges, jetties, decking, poles and sheet piling.

Technical properties

Green density	1.100 kg/m ³
Density (at 12%)	800 kg/m ³
Shrinkage green – oven dry	5,8% radial; 8,0% tangential
Durability according to EN 113 (without soil contact)	Heartwood class 1
Durability according to ENV 807 (with soil contact)	Heartwood class 2-3
Durability according to EN 350: 2016	Heartwood class 2
Bending strength, MOR (defect free samples)	123 N/mm ²
Modulus of elasticity, MOE (defect free samples)	19.282 N/mm ²
Shear strength (defect free samples)	15,4 N/mm ²
Janka hardness	7.200 N (transversal); 7.700 N (parallel)
Strength class (EN 338)	D40 *)
Chemical composition	Cellulose: 49,4%; Hemicellulose: 18,6%; Lignine: 32%
The figures in this table are mainly indicative, unless a specific standard is mentioned, which provides exact figures. *) This value is determined by testing of a limited number of full scale samples. A higher value is expected by testing more samples.	

References

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