



## MANDIOQUEIRA

### Source

FSC Mandioqueira) is available in the forests of Precious Woods, located in the Amazon region of Brazil. The trees attain heights up to 60 m, and maximum diameter of about 100 cm. The trunk is straight and cylindrical. It is possible to produce larger dimensions.

### Appearance

The color of the heartwood is yellowish red brown, with a light and fine stripy pattern. Often there is a white substance in the pores of the wood. The sapwood can easily be distinguished. The grain is mainly straight, but could be curved sometimes. The texture is medium coarse.

### Processing properties

The wood can be machined rather easily, although there is a slight blunting effect due to the Silica content. Pre-drilling is recommended. Finishing (including oil/stain) and gluing of Mandioqueira can be done successfully. The timber dries quickly with a (small) tendency to warp and check.

### Application

Mandioqueira is used for several applications:

- Interior: e.g. flooring, parquet, stairs
- Exterior: e.g. cladding, decking (boardwalks), constructions and street furniture

### Technical properties

Green density	1.100 – 1.200 kg/m <sup>3</sup>
Density (at 12%)	750 - 850 kg/m <sup>3</sup>
Shrinkage green – oven dry	4,3% radial; 7,8% tangential
Shrinkage green – 65% RH (abt. 12% EMC)	1,5% radial; 2,8% tangential
Swelling between 50-90% RH	1,6% radial; 2,9% tangential
Equilibrium Moisture Content (EMC)	8,8% (at 65% RH water adsorption) 13,3% (at 65% RH water desorption) 17,9% (at 95% RH water adsorption)
Fibre Saturation Point (FSP)	31%
Durability according to EN 113 (without soil contact)	Heartwood class 1
Durability according to ENV 807 (with soil contact)	Heartwood class 2
Bending strength, MOR (defect free samples)	103 N/mm <sup>2</sup>
Modulus of elasticity, MOE (defect free samples)	19.400 N/mm <sup>2</sup>
Shear strength (defect free samples)	14,6 N/mm <sup>2</sup>
Janka hardness	12.180 N (transversal); 10.094 N (parallel)
Strength class (EN 338)	D40 *)
Fire resistance flooring (EN 13501-1)	Cfl-s1
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 (10<sup>th</sup> edition 2010).