

Trebol

Family. Fabaceae

Botanical Name(s).

Platymiscium pinnatum

Platymiscium trinitatis

Platymiscium ulei

Continent. Latin America

CITES. This species is not listed in the CITES Appendices (Washington Convention 2023).

Description of logs

Diameter. From 40 to 60 cm

Thickness of sapwood. From 5 to 10 cm

Floats. No

Log durability. Moderate (treatment recommended)

Description of wood

Colour reference. Red brown

Sapwood. Clearly demarcated

Texture. Medium

Grain. Straight or interlocked

Interlocked grain. Slight

Notes. Heartwood presents irregular veins. Grain sometimes wavy.

Physics and mechanics

The properties indicated are for mature wood. These properties may vary significantly depending on the origin and growing conditions of the wood.

Property	Average value
Specific gravity ¹	0.79
Monnin hardness ¹	7.3
Coefficient of volumetric shrinkage	0.50 % per %
Total tangential shrinkage (St)	4.9 %
Total radial shrinkage (Sr)	2.9 %
Ratio St/Sr	1.7
Fibre saturation point	18 %
Thermal conductivity (λ)	0.26 W/(m.K)
Lower heating value	
Crushing strength ¹	58 MPa
Static bending strength ¹	125 MPa
Modulus of elasticity ¹	20,490 MPa

¹ At 12 % moisture content, with 1 MPa = 1 N/mm

Natural durability and preservation



Half-quarter sawn



Quarter sawn

Resistance to fungi. Class 2 - durable

Resistance to dry wood borers. Class D - durable (sapwood demarcated, risk limited to sapwood)

Resistance to termites. Class D - durable

Treatability. Class 3-4 - poorly or not permeable

Use class ensured by natural durability.

Class 3 - not in ground contact, outside

Notes. According to the European standard NF EN 335 (2013), performance length might be modified by the intensity of end-use exposition.

Requirement of a preservative treatment

Against dry wood borer. Does not require any preservative treatment

In case of temporary humidification. Does not require any preservative treatment

In case of permanent humidification. Use not recommended

Drying

Drying rate. Normal to slow

Risk of distorsion. Slight risk

Risk of casehardening. No known specific risk

Risk of checking. Slight risk

Risk of collapse. No known specific risk

Suggested drying program.

Phases	Duration (H)	MC (%) probes	T (°C)	Rh (%)	UGL (%)
Prewarm 1		> 50	50	87	17.0
Prewarm 2	4	> 50	50	86	16.5
Drying		> 50	53	85	15.7
		50 - 40	53	82.0	14.6
		40 - 35	54	78.0	13.4
		35 - 30	55	77.0	12.9
		30 - 27	57	73.0	11.9
		27 - 24	58	68.0	10.7
		24 - 21	60	61.0	9.3
		21 - 18	62	52.0	7.9
		18 - 15	64	43.0	6.6
		15 - 12	65	39.0	6.0
		12 - 9	65	31.0	5.0
		9 - 6	65	28.0	4.5
Conditioning	8		58	(3)	(2)
Cooling	(1)		Stop	(3)	(2)

(1)) Cooling: until the temperature inside the kiln no longer exceeds external temperature by more than 30 °C.

(2) UGL = final H% x 0,8 to 0,9.

(3) Subtract RH from the UGL determined in (2) and temperature, using the Hailwood-Horrobin equation.

Sawing and machining

Blunting effect. Normal

Sawteeth recommended. Ordinary or alloy steel

Cutting tools. Ordinary

Peeling. Not recommended or without interest

Slicing. Good

Assembling

Nailing and screwing. Good but pre-boring necessary

Commercial grading

Appearance grading for sawn timbers.

According to NHLA grading rules (2015) Possible grading: FAS, Select, Common 1, Common 2, Common 3 In French Guiana, the local name of this species is "Ebène rouge". Grading is done according to local rules "Bois guyanais classés". Possible grading: choix 1, choix 2, choix 3, choix 4

Visual grading for structural applications

No visual grading for structural applications

Fire safety

Conventional French grading.

Thickness > 14 mm: M3 (moderately inflammable)

Thickness < 14 mm: M4 (easily inflammable)

Euroclasses grading. D-s2, d0

Default grading for solid wood, according to requirements of European standard EN 14081-1+A1 (August 2019). It concerns structural graded timber in vertical uses and ceiling with mean density upper 0.35 and thickness upper 22 mm.

End-uses

- Bridges (parts not in contact with water or ground)
- Cabinetwork (high class furniture)
- Current furniture or furniture components
- Exterior joinery
- Exterior panelling
- Flooring
- Indoor staircases
- Interior joinery
- Interior panelling
- Moulding
- Musical instruments
- Sculpture
- Seats
- Sliced veneer
- Turned goods

Notes. Due to a low yield and high price, MACACAUBA is kept for first class end-uses, especially P. ulei.

Main local names

Country	Local name
Brazil	Macacauba
Brazil	Macacauba preta
Brazil	Macacauba vermelha
Brazil	Trebol
Costa Rica	Nambar
Ecuador	Caoba

Country

French Guiana
French Guiana
Nicaragua
Paraguay
Suriname
Suriname
Suriname
United States of America (importated tropical timber)
Venezuela

Local name

Beati
Bois de mora
Bastado
Trebol
Doekaliballi
Dukalaballi
Koenatepi
Macawood
Vencola