

Family: FABACEAE (angiosperm)

Scientific name(s): Platymiscium pinnatum

Platymiscium trinitatis

Platymiscium ulei

Commercial restriction: no commercial restriction

WOOD DESCRIPTION

Color: red brown
Sapwood: clearly demarcated
Texture: medium
Grain: straight or interlocked
Interlocked grain: slight
Note: Heartwood presents irregular veins. Grain sometimes wavy.

LOG DESCRIPTION

Diameter: from 40 to 60 cm
Thickness of sapwood: from 5 to 10 cm
Floats: no
Log durability: moderate (treatment recommended)

PHYSICAL PROPERTIES

Physical and mechanical properties are based on mature heartwood specimens. These properties can vary greatly depending on origin and growth conditions.

	<u>Mean</u>	<u>Std dev.</u>
Specific gravity *:	0,79	0,10
Monnin hardness *:	7,3	1,6
Coeff. of volumetric shrinkage:	0,50 %	
Total tangential shrinkage (TS):	4,9 %	1,0 %
Total radial shrinkage (RS):	2,9 %	0,6 %
TS/RS ratio:	1,7	
Fiber saturation point:	18 %	
Stability: stable		

MECHANICAL AND ACOUSTIC PROPERTIES

	<u>Mean</u>	<u>Std dev.</u>
Crushing strength *:	58 MPa	6 MPa
Static bending strength *:	125 MPa	12 MPa
Modulus of elasticity *:	20490 MPa	1250 MPa

(*: at 12% moisture content, with 1 MPa = 1 N/mm²)

NATURAL DURABILITY AND TREATABILITY

Fungi and termite resistance refers to end-uses under temperate climate. Except for special comments on sapwood, natural durability is based on mature heartwood. Sapwood must always be considered as non-durable against wood degrading agents.

E.N. = Euro Norm

Funghi (according to E.N. standards): class 2 - durable

Dry wood borers: durable - sapwood demarcated (risk limited to sapwood)

Termites (according to E.N. standards): class D - durable

Treatability (according to E.N. standards): no information available

Use class ensured by natural durability: class 3 - not in ground contact, outside

Species covering the use class 5: No

Note: According to the European standard NF EN 335, performance length might be modified by the intensity of end-use exposition.

REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks: does not require any preservative treatment

In case of risk of temporary humidification: does not require any preservative treatment

In case of risk of permanent humidification: use not recommended

DRYING

Drying rate: normal to slow

Risk of distortion: slight risk

Risk of casehardening: no

Risk of checking: slight risk

Risk of collapse: no

Possible drying schedule: 6

M.C. (%)	Temperature (°C)		Air humidity (%)
	dry-bulb	wet-bulb	
Green	42	41	94
50	48	43	74
30	54	46	63
20	60	51	62
15	60	51	62

This schedule is given for information only and is applicable to thickness lower or equal to 38 mm.

It must be used in compliance with the code of practice.

For thickness from 38 to 75 mm, the air relative humidity should be increased by 5 % at each step.

For thickness over 75 mm, a 10 % increase should be considered.

SAWING AND MACHINING

Blunting effect: normal

Sawteeth recommended: ordinary or alloy steel

Cutting tools: ordinary

Peeling: no information available

Slicing: nood

ASSEMBLING

Nailing / screwing: good but pre-boring necessary

Gluing: correct

COMMERCIAL GRADING

Appearance grading for sawn timbers: According to NHLA grading rules (January 2007)

Possible grading: FAS, Select, Common 1, Common 2, Common 4

In French Guiana, the local name of this species is "EBENE ROUGE". Grading is done according to local rules "Bois guyanais classés".

Possible grading: Choix 1, choix 2, choix 3, choix 4

FIRE SAFETY

Conventional French grading: Thickness > 14 mm : M.3 (moderately inflammable)

Thickness < 14 mm : M.4 (easily inflammable)

Euroclasses grading: D s2 d0

Default grading for solid wood, according to requirements of European standard EN 14081-1 annex C (April 2009). It concerns structural graded timber in vertical uses with mean density upper 0.35 and thickness upper 22 mm.

END-USES

Current furniture or furniture components

Flooring

Interior joinery

Moulding

Exterior joinery

Musical instruments

Seats

Bridges (parts not in contact with water or ground)

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

Sliced veneer

Interior panelling

Cabinetwork (high class furniture)

Stairs (inside)

Exterior panelling

Turned goods

Sculpture

MAIN LOCAL NAMES

<u>Country</u>	<u>Local name</u>	<u>Country</u>	<u>Local name</u>
Brazil	MACACAUBA	Brazil	MACACAUBA PRETA
Brazil	MACACAUBA VERMELHA	Brazil	TREBOL
Costa Rica	NAMBAR	Ecuador	CAOBA
French Guiana	BEATI	French Guiana	BOIS DE MORA
Nicaragua	BASTADO	Paraguay	TREBOL
Suriname	DOEKALIBALLI	Suriname	DUKALABALLI
Suriname	KOENATEPI	Venezuela	VENCOLA
United States of America	MACAWOOD		

