

Family: FABACEAE-CAESALPINIOIDEAE (angiosperm)

Scientific name(s): Peltogyne spp.

Commercial restriction: no commercial restriction

WOOD DESCRIPTION

Color: purple
Sapwood: clearly demarcated
Texture: medium
Grain: straight
Interlocked grain: absent

Note: Purple wood turns to dark brown with light. Possible presence of internal stresses.

LOG DESCRIPTION

Diameter: from 50 to 90 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 *:	0,87	0,08
Monnin hardness *:	7,6	1,4
Coeff. of volumetric shrinkage:	0,58 %	0,07 %
Total tangential shrinkage (TS):	6,7 %	0,9 %
Total radial shrinkage (RS):	4,4 %	0,8 %
TS/RS ratio:	1,5	
Fiber saturation point:	23 %	
Stability:	moderately stable	

MECHANICAL AND ACOUSTIC PROPERTIES

	<u>Mean</u>	<u>Std dev.</u>
Crushing strength *:	80 MPa	9 MPa
Static bending strength *:	141 MPa	19 MPa
Modulus of elasticity *:	21250 MPa	2220 MPa
(*: at 12% moisture content, with 1 MPa = 1 N/mm ²)		
Musical quality factor:	168,4 measured at 2890 Hz	

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 2-3 - durable to moderately 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): class 4 - not permeable

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

Species covering the use class 5: No

Note: This species is listed in the European standard NF EN 350-2.

Resistance to decay: moderate to good.

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: 4

M.C. (%)	Temperature (°C)		Air humidity (%)
	dry-bulb	wet-bulb	
Green	42	39	82
50	48	43	74
40	48	43	74
30	48	43	74
15	54	46	63

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: fairly high
 Sawteeth recommended: stellite-tipped
 Cutting tools: tungsten carbide
 Peeling: not recommended or without interest
 Slicing: nood
 Note: Requires power.

ASSEMBLING

Nailing / screwing: good but pre-boring necessary
 Gluing: correct
 Note: Tends to split when nailing.

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 "AMARANTE". 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: C s2 d0
 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.
 Given according to procedures given by European standard NF EN 13501-1 (september 2007). European grading report done by CSTB with the following number : RA05-0238A.

END-USES

Cabinetwork (high class furniture)	Current furniture or furniture components
Sliced veneer	Interior panelling
Sculpture	Flooring
Ship building (ribs)	Ship building (planking and deck)
Exterior joinery	Exterior panelling
Stairs (inside)	Heavy carpentry
Glued laminated	Vehicle or container flooring
Interior joinery	Turned goods
Musical instruments	Wood-ware

Note: In the USA, AMARANTE is used to make high class coffins.

MAIN LOCAL NAMES

<u>Country</u>	<u>Local name</u>	<u>Country</u>	<u>Local name</u>
Brazil (Amazon)	GUARABU	Brazil (Amazon)	IPE ROXO
Brazil (Amazon)	PAU ROXO	Brazil (Amazon)	ROXINHO
Colombia	TANANEO	Guyana	KOROBORELLI
Guyana	PURPLEHEART	French Guiana	AMARANTE
French Guiana	BOIS VIOLET	Panama	NAZANERO
Suriname	PURPERHART	Venezuela	MORADO
Venezuela	ZAPATERO	Germany	VIOLETTHOLZ
United States of America	AMARANTH		

