Family: FABACEAE-CAESALPINIOIDEAE (angiosperm)

Scientific name(s): Peltogyne spp.

Commercial restriction: no commercial restriction

#### WOOD DESCRIPTION

### LOG DESCRIPTION

Color: purple Diameter: from 50 to 90 cm Sapwood: clearly demarcated Thickness of sapwood: from 5 to 10 cm

Texture: medium Floats: no

Grain: straight Log durability: moderate (treatment recommended)

Interlocked grain: absent

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

#### PHYSICAL PROPERTIES

#### MECHANICAL AND ACOUSTIC 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>	Std dev.	Mean Std dev.
Specific gravity *:	0.87	0.08	Crushing strength *: 80 MPa 9 MPa
Monnin hardness *:	7.6	1.4	Static bending strength *: 141 MPa 19 MPa
Coeff. of volumetric shrinkage:	0.58 %	0.07 %	Modulus of elasticity *: 21250 MPa 2220 MPa
Total tangential shrinkage (TS):	6.7 %	0.9 %	
Total radial shrinkage (RS):	4.4 %	0.8 %	(*: at 12% moisture content, with 1 MPa = 1 N/mm <sup>2</sup> )
TS/RS ratio:	1.5		
Fiber saturation point:	23 %		Musical quality factor: 168.4 measured at 2890 Hz
Stability:	moderately stable		

# 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. F.N. = Furo Norm

Funghi (according to E.N. standards): class 2-3 - durable to moderately durable

Dry wood borers: class D - 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

Temperature (°C)						
M.C. (%)	dry-bulb	wet-bulb	Air humidity (%)			
Green	42	39	82			
50	48	43	74			
40	48	43	74			
30	48	43	74			
15	5.4	16	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: good

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 : M3 (moderately inflammable)

Thickness < 14 mm : M4 (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 whith the following number : RA05-0238A.

### **END-USES**

Cabinetwork (high class furniture)

Sliced veneer Sculpture

Ship building (ribs)
Exterior joinery
Stairs (inside)
Glued laminated
Interior joinery

Musical instruments
Tool handles (resilient woods)

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

Current furniture or furniture components

Interior panelling

Flooring

Ship building (planking and deck)

Exterior panelling Heavy carpentry

Vehicle or container flooring

Turned goods Wood-ware

## **MAIN LOCAL NAMES**

Country Local name Brazil (Amazon) GUARABU Brazil (Amazon) PAU ROXO Colombia **TANANEO** Guyana PURPLEHEART French Guiana **BOIS VIOLET** Suriname **PURPERHART** Venezuela ZAPATERO United States of America **AMARANTH** 

Country Local name Brazil (Amazon) **IPE ROXO** Brazil (Amazon) **ROXINHO** Guyana KOROBORELLI French Guiana AMARANTE Panama NAZANERO MORADO Venezuela VIOLETTHOLZ Germany







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