

Common name:	PAO ROSA
Family:	CAESALPINIACEAE
Scientific name(s):	Bobgunnia fistuloides Swartzia fistuloides (synonymous)

LOG DESCRIPTION		WOOD DESCRIPTION	
Diameter:	from 50 to 80 cm	Colour:	Light red
Thickness of sapwood:	from 1 to 2 cm	Sapwood:	Clearly demarcated
Floats:	no	Texture:	Fine
Durability in forest :	Good	Grain:	Interlocked
		Interlocked grain:	Slight
Note:	Wood pinkish white to light red, with red brown veins.		

PHYSICAL PROPERTIES			MECHANICAL PROPERTIES		
Physical and mechanical properties are based on mature heartwood specimens. These properties can vary greatly depending on origin and growth conditions.					
	mean	standard deviation		mean	standard deviation
Density *:	1.02 g/cm ³	0.04			
Monnin hardness*:	9.1		Crushing strength *:	90 MPa	8
Coef of volumetric shrinkage:	0.66 %	0.05	Static bending strength *:	149 MPa	13
Total tangential shrinkage:	6.2 %		Modulus of elasticity *:	21290 MPa	1970
Total radial shrinkage:	4.2 %				
Fibre saturation point:	19 %				
Stability:	stable		(* : at 12 % moisture content ; 1 MPa = 1 N/mm ²)		

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.

Fungi:	Class 1 - very durable	* ensured by natural durability (according EN standards).
Dry wood borers:	Durable; sapwood demarcated (risk limited to sapwood)	
Termites:	Class D - Durable	
Treatability:	3 - poorly permeable	
Use class*:	4 - in ground or fresh water contact	
Note:	According to the European standard NF EN 335, performance length might be modified by the intensity of end-use exposition.	

MAIN LOCAL NAMES

Countries	Local names
Central African Rep	N'GUESSA
Congo	KISASAMBA
Côte d'Ivoire	BOTO
Dem Rep of Congo	NSAKALA
Gabon	OKEN
Mozambique	PAU FERRO

REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks:	Does not require any preservative treatment
In case of temporary humidification risk:	Does not require any preservative treatment
In case of permanent humidification risk:	Does not require any preservative treatment

DRYING

Possible drying schedule

	Drying rate:	Slow	Temperature (°C)		Air humidity (%)	
			M.C. (%)	dry-bulb		wet-bulb
Risk of distortion:	Slight risk					
Risk of casehardening:	No					
Risk of checking:	High risk					
Risk of collapse:	No					
			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 < 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.

Note: Some risks of end checking and extension of existing cracks.

SAWING AND MACHINING

Blunting effect:	Normal
Sawteeth recommended:	Ordinary or alloy steel
Cutting tools:	Ordinary
Peeling:	Not recommended or without interest
Slicing:	Good
Note:	Requires power. Sawblades can vibrate and overheat. Tendency to burn the wood in boring. Sometimes slight woolliness. Sawdust sometimes irritant.

ASSEMBLING

Nailing / Screwing:	Good but pre-boring necessary
Gluing:	Correct (for interior only)
Note:	Gluing must be done carefully (very dense wood).

END-USES

Main known end-uses; they must to be implemented according to the code of practice.

Important remark: some end-uses are mentionned for information (traditional, regional or ancient end-uses).

- Sliced veneer
- Cabinetwork (high class furniture)
- Sculpture
- Percussion instruments
- Turned goods
- Tool handles (resilient woods)
- Cooperage
- Resistant to one or several acids