

Family: FABACEAE-CAESALPINIOIDEAE (angiosperm)

Scientific name(s): Bobgunnia fistuloides

Swartzia fistuloides (synonymous)

Commercial restriction: no commercial restriction

WOOD DESCRIPTION

Color: light red
Sapwood: clearly demarcated
Texture: fine
Grain: interlocked
Interlocked grain: slight

Note: Wood pinkish white to light red, with red brown veins.

LOG DESCRIPTION

Diameter: from 50 to 80 cm
Thickness of sapwood: from 1 to 2 cm
Floats: no
Log durability: good

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 *:	1,02	0,04
Monnin hardness *:	9,1	
Coeff. of volumetric shrinkage:	0,66 %	0,05 %
Total tangential shrinkage (TS):	6,2 %	
Total radial shrinkage (RS):	4,2 %	
TS/RS ratio:	1,5	
Fiber saturation point:	19 %	
Stability:	stable	

MECHANICAL AND ACOUSTIC PROPERTIES

	<u>Mean</u>	<u>Std dev.</u>
Crushing strength *:	90 MPa	8 MPa
Static bending strength *:	149 MPa	13 MPa
Modulus of elasticity *:	21290 MPa	1970 MPa

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

Musical quality factor: 160,8 measured at 2351 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 1 - very 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 3 - poorly permeable

Use class ensured by natural durability: class 4 - in ground or fresh water contact

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: does not require any preservative treatment

DRYING

Drying rate: slow
 Risk of distortion: slight risk
 Risk of casehardening: no
 Risk of checking: high 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

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

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: not recommended or without interest
 Slicing: nood

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).

COMMERCIAL GRADING

Appearance grading for sawn timbers: According to SATA grading rules (1996)
 For the "General Purpose Market":
 Possible grading for square edged timbers: choix I, choix II, choix III, choix IV
 Possible grading for short length lumbers: choix I, choix II
 Possible grading for short length rafters: choix I, choix II, choix III
 For the "Special Market":
 Possible grading for strips and small boards (ou battens): choix I, choix II, choix III
 Possible grading for rafters: choix I, choix II, choix III

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

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

MAIN LOCAL NAMES

<u>Country</u>	<u>Local name</u>	<u>Country</u>	<u>Local name</u>
Cameroon	NOM NSAS	Congo	KISASAMBA
Ivory Coast	BOTO	Gabon	OKEN
Mozambique	PAU FERRO	Nigeria	UDOGHOGHO
Central African Republic	N' GUESSA	Democratic Republic of the Congo	NSAKALA

