

Family: FABACEAE-CAESALPINIOIDEAE (angiosperm)

Scientific name(s): Julbernardia pellegriniana

Paraberlinia bifoliolata (synonymous)

Commercial restriction: no commercial restriction

WOOD DESCRIPTION

Color: brown
Sapwood: clearly demarcated
Texture: medium
Grain: straight or interlocked
Interlocked grain: slight

Note: Wood highly veined with alternate dark and light coloured streaks. Grain sometimes oblique.

LOG DESCRIPTION

Diameter: from 80 to 100 cm
Thickness of sapwood: from 10 to 15 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 *:	0,77	0,06
Monnin hardness *:	5,6	1,3
Coeff. of volumetric shrinkage:	0,60 %	0,07 %
Total tangential shrinkage (TS):	8,9 %	1,0 %
Total radial shrinkage (RS):	4,3 %	0,6 %
TS/RS ratio:	2,1	
Fiber saturation point:	27 %	
Stability:	moderately stable	

MECHANICAL AND ACOUSTIC PROPERTIES

	<u>Mean</u>	<u>Std dev.</u>
Crushing strength *:	68 MPa	5 MPa
Static bending strength *:	128 MPa	15 MPa
Modulus of elasticity *:	17840 MPa	2344 MPa

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

Musical quality factor: 115,7 measured at 2871 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 3 - moderately durable

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

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

Treatability (according to E.N. standards): class 3 - poorly permeable

Use class ensured by natural durability: class 2 - inside or under cover (dampness possible)

Species covering the use class 5: No

REQUIREMENT OF A PRESERVATIVE TREATMENT

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

In case of risk of temporary humidification: requires appropriate preservative treatment

In case of risk of permanent humidification: use not recommended

DRYING

Drying rate: normal to slow

Possible drying schedule: 4

Risk of distortion: slight risk

Risk of casehardening: no

Risk of checking: slight risk

Risk of collapse: no

Note: Possibility of discoloration during drying.

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: normal

Sawteeth recommended: ordinary or alloy steel

Cutting tools: ordinary

Peeling: no information available

Slicing: nood

Note: Risks of distortion in machining (especially in planing).

ASSEMBLING

Nailing / screwing: good but pre-boring necessary

Gluing: correct

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

Cabinetwork (high class furniture)

Heavy carpentry

Current furniture or furniture components

Interior panelling

Vehicle or container flooring

Note: End-uses for this species are limited because of its low yield due to the possible presence of defects.

Sliced veneer

Wood frame house

Interior joinery

Flooring

Stairs (inside)

MAIN LOCAL NAMES

<u>Country</u>	<u>Local name</u>	<u>Country</u>	<u>Local name</u>
Cameroon	EKOP-BELI	Gabon	AWOURA
Gabon	BELI	Germany	ZEBRALI
France	ZEBRALI		

