

Family: OCHNACEAE (angiosperm)

Scientific name(s): *Testulea gabonensis*

Commercial restriction: no commercial restriction

WOOD DESCRIPTION

Color: yellow brown
Sapwood: not clearly demarcated
Texture: fine
Grain: straight or interlocked
Interlocked grain: slight
Note: Wood yellow brown to orangey yellow.

LOG DESCRIPTION

Diameter: from 70 to 100 cm
Thickness of sapwood: from 3 to 5 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 *:	0,72	0,05
Monnin hardness *:	5,2	1,1
Coeff. of volumetric shrinkage:	0,48 %	0,09 %
Total tangential shrinkage (TS):	7,0 %	1,2 %
Total radial shrinkage (RS):	4,0 %	0,4 %
TS/RS ratio:	1,8	
Fiber saturation point:	25 %	
Stability: stable		

MECHANICAL AND ACOUSTIC PROPERTIES

	<u>Mean</u>	<u>Std dev.</u>
Crushing strength *:	61 MPa	9 MPa
Static bending strength *:	100 MPa	18 MPa
Modulus of elasticity *:	13090 MPa	2306 MPa
(*: at 12% moisture content, with 1 MPa = 1 N/mm ²)		
Musical quality factor:	143,3	measured at 2480 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 - durable
Dry wood borers: heartwood durable but sapwood not clearly demarcated
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 3 - not in ground contact, outside
Species covering the use class 5: No

Note: The possible presence of few demarcated sapwood in sawnwoods may have an influence on the expected durability.
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: requires appropriate 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: high risk

Risk of collapse: no

Note: Quartersaws recommended in order to reduce the risk of checks.

Possible drying schedule: 5

M.C. (%)	Temperature (°C)		Air humidity (%)
	dry-bulb	wet-bulb	
30	42	41	94
25	42	39	82
20	48	43	74
15	48	43	74

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: Possible difficulties in planing due to interlocked grain.

ASSEMBLING

Nailing / screwing: good

Gluing: correct

Note: Pre-boring sometimes necessary, especially for small dimensions.

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

Current furniture or furniture components

Cabinetwork (high class furniture)

Interior panelling

Ship building (planking and deck)

Flooring

Stairs (inside)

Bridges (parts not in contact with water or ground)

Sculpture

Sliced veneer

Interior joinery

Ship building (ribs)

Exterior joinery

Vehicle or container flooring

Turned goods

Moulding

Note: It is recommended to machine this wood with a moisture content inferior to the moisture content usually indicated for the forecasted end-use.

MAIN LOCAL NAMES

<u>Country</u>	<u>Local name</u>	<u>Country</u>	<u>Local name</u>
Cameroon	RONE	Congo	N'GWAKI
Gabon	AKE	Gabon	AKEWE
Gabon	IZOMBE	Gabon	N' KOMI

