

Family: COMBRETACEAE (angiosperm)

Scientific name(s): Terminalia superba

Commercial restriction: no commercial restriction

WOOD DESCRIPTION

Color: light yellow
 Sapwood: not demarcated
 Texture: medium
 Grain: straight or interlocked
 Interlocked grain: slight

Note: Sometimes brittleheart. Some logs have a black greyish heartwood, more or less veined.

LOG DESCRIPTION

Diameter: from 60 to 100 cm
 Thickness of sapwood:
 Floats: yes
 Log durability: low (must be treated)

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 *:	0,54	0,07
Monnin hardness *:	2,4	0,9
Coeff. of volumetric shrinkage:	0,42 %	0,07 %
Total tangential shrinkage (TS):	6,1 %	0,9 %
Total radial shrinkage (RS):	4,3 %	1,1 %
TS/RS ratio:	1,4	
Fiber saturation point:	28 %	
Stability:	moderately stable	

MECHANICAL AND ACOUSTIC PROPERTIES

	<u>Mean</u>	<u>Std dev.</u>
Crushing strength *:	47 MPa	8 MPa
Static bending strength *:	80 MPa	16 MPa
Modulus of elasticity *:	11750 MPa	2480 MPa
(*: at 12% moisture content, with 1 MPa = 1 N/mm ²)		
Musical quality factor:	115,6 measured at 2740 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 4 - poorly durable

Dry wood borers: susceptible - sapwood not or slightly demarcated (risk in all the wood)

Termites (according to E.N. standards): class S - susceptible

Treatability (according to E.N. standards): class 2 - moderately permeable

Use class ensured by natural durability: class 1 - inside (no dampness)

Species covering the use class 5: No

Note: This species is listed in the European standard NF EN 350-2.

Preservative treatment is sometimes difficult due to a variable permeability (low to good).

REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks: requires appropriate 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: rapid to normal
 Risk of distortion: no risk or very slight risk
 Risk of casehardening: no
 Risk of checking: no risk or very slight risk
 Risk of collapse: no

Possible drying schedule: 3

M.C. (%)	Temperature (°C)		Air humidity (%)
	dry-bulb	wet-bulb	
Green	60	56	81
30	68	58	61
20	74	60	51
15	80	61	41

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: good
 Slicing: good
 Note: Internal stresses in some logs (usually timbers from plantation). Sometimes, blunting effect quite high.

ASSEMBLING

Nailing / screwing: good
 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

Veneer for interior of plywood	Veneer for back or face of plywood
Blockboard	Current furniture or furniture components
Seats	Interior joinery
Interior panelling	Moulding
Light carpentry	Glued laminated
Wood frame house	Boxes and crates
Fiber or particle boards	Wood-ware
Sliced veneer	

Note: Sawdust may cause allergic reactions during machining.

MAIN LOCAL NAMES

<u>Country</u>	<u>Local name</u>	<u>Country</u>	<u>Local name</u>
Benin	AZINII	Cameroon	AKOM
Congo	LIMBA	Ivory Coast	FRAKE
Gabon	AKOM	Ghana	OFRAM
Equatorial Guinea	AKOM	Nigeria	AFARA
Nigeria	WHITE AFARA	Central African Republic	N'GANGA
Democratic Republic of the Congo	LIMBA	Sierra Leone	KOJAGEI
France	FRAKE	France	LIMBO
France	NOYER DU MAYOMBE	United States of America	KORINA

