

Family: CALOPHYLLACEAE (angiosperm)

Scientific name(s): Mammea africana

Commercial restriction: no commercial restriction

## WOOD DESCRIPTION

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

Note: Wood dark red to purplish red brown. Small brown spots sometimes quite numerous (resin).

## LOG DESCRIPTION

Diameter: from 60 to 100 cm  
Thickness of sapwood: from 3 to 6 cm  
Floats: no  
Log durability: no information available

## 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 *:	0,75	0,06
Monnin hardness *:	5,2	1,3
Coeff. of volumetric shrinkage:	0,44 %	0,13 %
Total tangential shrinkage (TS):	9,5 %	0,6 %
Total radial shrinkage (RS):	6,0 %	0,6 %
TS/RS ratio:	1,6	
Fiber saturation point:	37 %	
Stability:	moderately stable to stable	

## MECHANICAL AND ACOUSTIC PROPERTIES

	<u>Mean</u>	<u>Std dev.</u>
Crushing strength *:	65 MPa	10 MPa
Static bending strength *:	115 MPa	18 MPa
Modulus of elasticity *:	16040 MPa	2200 MPa
(*: at 12% moisture content, with 1 MPa = 1 N/mm <sup>2</sup> )		
Musical quality factor:	128,5 measured at 2651 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: 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: use not recommended

## DRYING

Drying rate: normal to slow

Risk of distortion: high risk

Risk of casehardening: no

Risk of checking: high risk

Risk of collapse: yes

Note: Must be dried slowly and carefully to avoid defects.

Possible drying schedule: 2

M.C. (%)	Temperature (°C)		Air humidity (%)
	dry-bulb	wet-bulb	
Green	50	47	84
40	50	45	75
30	55	47	67
20	70	55	47
15	75	58	44

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: not recommended or without interest

## ASSEMBLING

Nailing / screwing: good but pre-boring necessary

Gluing: correct

Note: Pre-boring necessary in order to avoid risks of splits.

## 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

Interior joinery

Exterior joinery

Current furniture or furniture components

Flooring

Note: Sometimes difficult to paint or to varnish due to resin exudations.

Interior panelling

Light carpentry

Bridges (parts not in contact with water or ground)

---

**MAIN LOCAL NAMES**

---

<u>Country</u>	<u>Local name</u>	<u>Country</u>	<u>Local name</u>
Benin	OLOGBOMODU	Cameroon	ABOTZOK
Congo	LIBU	Congo	M' BOSSI
Ivory Coast	DJIMBO	Gabon	EBORNZORK
Gabon	OBOTO	Ghana	BOM PEGYA
Nigeria	OLOGBOMIDU	Central African Republic	BOLELE
Democratic Republic of the Congo	BOKOLI	Democratic Republic of the Congo	BOLIKI
Democratic Republic of the Congo	M' BOZA		

