

## Oboto

---

Family. Calophyllaceae

Botanical Name(s).

*Mammea africana*

Continent. Africa

CITES. This species is not listed in the CITES Appendices (Washington Convention 2023).

### Description of logs

Diameter. From 60 to 100 cm

Thickness of sapwood. From 3 to 6 cm

Floats. No

Log durability. Good

### Description of wood

Colour reference. Red brown

Sapwood. Clearly demarcated

Texture. Medium

Grain. Interlocked

Interlocked grain. Slight

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

### Physics and mechanics

*The properties indicated are for mature wood. These properties may vary significantly depending on the origin and growing conditions of the wood.*

Property	Average value
Specific gravity <sup>1</sup>	0.75
Monnin hardness <sup>1</sup>	5.2
Coefficient of volumetric shrinkage	0.44 % per %
Total tangential shrinkage (St)	9.5 %
Total radial shrinkage (Sr)	6.0 %
Ratio St/Sr	1.6
Fibre saturation point	37 %
Thermal conductivity ( $\lambda$ )	0.25 W/(m.K)
Lower heating value	
Crushing strength <sup>1</sup>	65 MPa
Static bending strength <sup>1</sup>	115 MPa
Modulus of elasticity <sup>1</sup>	16,040 MPa

<sup>1</sup> At 12 % moisture content, with 1 MPa = 1 N/mm

### Natural durability and preservation

Resistance to fungi. Class 2 - durable



Half-quarter sawn



Flat sawn

Resistance to dry wood borers. Class D - durable (sapwood demarcated, risk limited to sapwood)

Resistance to termites. Class D - durable

Treatability. Class 3 - poorly permeable

Use class ensured by natural durability.

Class 4 - in ground or fresh water contact

Notes. According to the European standard NF EN 335 (2013), performance length might be modified by the intensity of end-use exposition.

### Requirement of a preservative treatment

Against dry wood borer. Does not require any preservative treatment

In case of temporary humidification. Does not require any preservative treatment

In case of permanent humidification. Use not recommended

### Drying

Drying rate. Normal to slow

Risk of distorsion. High risk

Risk of casehardening. No known specific risk

Risk of checking. High risk

Risk of collapse. Yes

Suggested drying program.

Phases	Duration (H)	MC (%) probes	T (°C)	Rh (%)	UGL (%)
<b>Prewarm 1</b>		> 50	50	87	17.0
<b>Prewarm 2</b>	4	> 50	50	86	16.5
<b>Drying</b>		> 50	53	85	15.7
		50 - 40	53	82.0	14.6
		40 - 35	54	78.0	13.4
		35 - 30	55	77.0	12.9
		30 - 27	57	73.0	11.9
		27 - 24	58	68.0	10.7
		24 - 21	60	61.0	9.3
		21 - 18	62	52.0	7.9
		18 - 15	64	43.0	6.6
		15 - 12	65	39.0	6.0
		12 - 9	65	31.0	5.0
		9 - 6	65	28.0	4.5
<b>Conditioning</b>	8		58	(3)	(2)
<b>Cooling</b>	(1)		Stop	(3)	(2)

(1) ) Cooling: until the temperature inside the kiln no longer exceeds external temperature by more than 30 °C.

(2) UGL = final H% x 0,8 to 0,9.

(3) Subtract RH from the UGL determined in (2) and temperature, using the Hailwood-Horrobin equation.

### 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 and screwing. Good but pre-boring necessary

## Commercial grading

Appearance grading for sawn timbers.

According to the ATIBT grading rules (2017), the main choices are: FAS (First And Second), n°1 Common and select, n°2 Common (see details of these rules on the ATIBT website).

Visual grading for structural applications

According to French standard NF B 52-001-1 (2018), strength class D40 can be provided by visual grading.

## Fire safety

Conventional French grading.

Thickness > 14 mm: M3 (moderately inflammable)

Thickness < 14 mm: M4 (easily inflammable)

Euroclasses grading. D-s2, d0

Default grading for solid wood, according to requirements of European standard EN 14081-1+A1 (August 2019). It concerns structural graded timber in vertical uses and ceiling with mean density upper 0.35 and thickness upper 22 mm.

## End-uses

- Bridges (parts not in contact with water or ground)
- Current furniture or furniture components
- Decking
- Exterior joinery
- Flooring
- Interior joinery
- Interior panelling
- Light carpentry

Notes. Sometimes difficult to paint or to varnish due to resin exudations.

## Main local names

Country	Local name
Benin	Ologbomodu
Cameroon	Abotzok
Central African Republic	Bolélé
Congo	Libu
Congo	M'bossi
Côte d'Ivoire	Djimbo
Democratic Republic of the Congo	Bokoli
Democratic Republic of the Congo	Boliki
Democratic Republic of the Congo	M'boza
Gabon	Ébornzork
Gabon	Oboto
Ghana	Bom pegya
Nigeria	Ologbomidu