

Family: FABACEAE (angiosperm)

Scientific name(s): Pericopsis elata

Afrormosia elata (synonymous)

Commercial restriction: species mentioned in Appendix II (see note)

Note: AFRORMOSIA is listed in CITES (Convention on International Trade in Endangered Species of wild fauna and flora), appendix 2 and in the European Union Regulation, appendix B. Parts of wood and wood-made products which are regulated are defined by a note: logs, sawing woods and veneers. To trade these parts and products, the exporting or re-exporting country must emit a CITES permit or certificate and an importation permit is compulsory to import within the EU.

## WOOD DESCRIPTION

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

Note: Logs irregularly shaped.

Wood yellow brown with darker veins, turning dark brown on exposure.

## LOG DESCRIPTION

Diameter: from 80 to 120 cm  
Thickness of sapwood: from 1 to 2 cm  
Floats: no  
Log durability: good

## 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 *:	0,74	0,07
Monnin hardness *:	7,0	1,5
Coeff. of volumetric shrinkage:	0,50 %	0,06 %
Total tangential shrinkage (TS):	5,9 %	0,9 %
Total radial shrinkage (RS):	3,2 %	0,5 %
TS/RS ratio:	1,8	
Fiber saturation point:	20 %	
Stability:	moderately stable to poorly stable	

## MECHANICAL AND ACOUSTIC PROPERTIES

	<u>Mean</u>	<u>Std dev.</u>
Crushing strength *:	64 MPa	2 MPa
Static bending strength *:	93 MPa	22 MPa
Modulus of elasticity *:	13140 MPa	966 MPa

(\*: at 12% moisture content, with 1 MPa = 1 N/mm<sup>2</sup>)

Musical quality factor: 127,8 measured at 2569 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 1-2 - very durable to 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 4 - not permeable

Use class ensured by natural durability: class 4 - in ground or fresh water contact

Species covering the use class 5: No

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

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: does not require any preservative treatment

## DRYING

Drying rate: slow  
 Risk of distortion: slight risk  
 Risk of casehardening: no  
 Risk of checking: slight risk  
 Risk of collapse: no

Possible drying schedule: 4

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: fairly high  
 Sawteeth recommended: stellite-tipped  
 Cutting tools: tungsten carbide  
 Peeling: not recommended or without interest  
 Slicing: nood  
 Note: Risks of burning in machining. Slight tendency to tearing in planing (interlocked grain). Sawdust reported to be irritant.

## ASSEMBLING

Nailing / screwing: good but pre-boring necessary  
 Gluing: correct  
 Note: Gluing must be done carefully: wood may be easily stained.

## 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

Sliced veneer	Cabinetwork (high class furniture)
Current furniture or furniture components	Interior joinery
Interior panelling	Stairs (inside)
Flooring	Ship building (planking and deck)
Turned goods	Exterior joinery
Exterior panelling	

Note: Excellent substitute for teak.

## MAIN LOCAL NAMES

<u>Country</u>	<u>Local name</u>	<u>Country</u>	<u>Local name</u>
Cameroon	OBANG	Congo	OBANG
Ivory Coast	ASSAMELA	Ghana	AFRORMOSIA
Ghana	KOKRUDUA	Central African Republic	OBANG
Democratic Republic of the Congo	BOHALA	Democratic Republic of the Congo	BOHELE
Democratic Republic of the Congo	MOHOLE	Democratic Republic of the Congo	OLE
France	ASSAMELA	France	OLEO PARDO

