Afrormosia

Family. Fabaceae

Botanical Name(s).

Pericopsis elata

Afrormosia elata (synonymous)

Continent. Africa

CITES. This species is listed in Appendix II of CITES (Washington Convention 2023). The products concerned are logs, sawn wood, veneer, plywood and engineered wood.

Notes. AFRORMOSIA is listed in CITES (Convention on International Trade in Endangered Species of wild fauna and flora, February 2023), 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.

Half-quarter sawn

Flat sawn

Description of logs

Diameter. From 80 to 120 cm

Thickness of sapwood. From 1 to 2 cm

Floats. No

Log durability. Good

Description of wood

Colour reference. Yellow brown

Sapwood. Clearly demarcated

Texture. Fine

Grain. Straight or interlocked

Interlocked grain. Slight

Notes. Logs irregularly shaped. Wood yellow brown with darker veins, turning dark brown on exposure.

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[1]	0.74
Monnin hardness[1]	7.0
Coefficient of volumetric shrinkage	0.50 % per %
Total tangential shrinkage (St)	5.9 %
Total radial shrinkage (Sr)	3.2 %
Ratio St/Sr	1.8
Fibre saturation point	20 %
Thermal conductivity (λ)	0.24 W/(m.K)
Lower heating value	

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Crushing strength[1]	64 MPa
Static bending strength[1]	93 MPa
Modulus of elasticity[1]	13,140 MPa

[1] At 12 % moisture content, with 1 MPa = 1 N/mm

Natural durability and preservation

Resistance to fungi. Class 1-2 - very durable to durable

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

Resistance to termites. Class D - durable

Treatability. Class 4 - not permeable

Use class ensured by natural durability.

Class 4 - in ground or fresh water contact

Notes. This species is listed in the European standard NF EN 350 (2016). 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. Does not require any preservative treatment

Drying

Drying rate. Slow

Risk of distorsion. Slight risk

Risk of casehardening. No known specific risk

Risk of checking. Slight risk

Risk of collapse. No known specific risk

Notes.

Suggested drying program.

Phases	Duration (H)	MC (%) probes	T (°C)	Rh (%)	UGL (%)
Prewarm 1		> 50	50	86	16.5
Prewarm 2	3	> 50	52	85	16.0
Drying		> 50	55	82	14.7
		50 - 40	55	80.0	13.8
		40 - 35	55	75.0	12.6
		35 - 30	56	73.0	12.0
		30 - 27	58	67.0	10.5
		27 - 24	60	58.0	8.9
		24 - 21	62	50.0	7.5
		21 - 18	64	45.0	6.8
		18 - 15	65	37.0	5.7
		15 - 12	65	34.0	5.3
		12 - 9	65	28.0	4.5
		9 - 6	65	24.0	4.0
Conditioning	6		58	(3)	(2)
Cooling	(1)		Stop	(3)	(2)

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(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. Fairly high

Sawteeth recommended. Stellite-tipped

Cutting tools. Tungsten carbide

Peeling. Not recommended or without interest

Slicing. Good

Notes. Risks of burning in machining. Slight tendency to tearing in planing (interlocked grain). Sawdust reported to be irritant.

Assembling

Nailing and screwing. Good but pre-boring necessary

Notes. Tends to stain when gluing

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

No visual structure 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

- Cabinetwork (high class furniture)
- Current furniture or furniture components
- Decking
- Exterior joinery
- Exterior panelling
- Flooring
- Indoor staircases
- Interior joinery
- Interior panelling
- Ship building (planking and deck)
- Sliced veneer
- Turned goods

Notes. Excellent substitute for teak.

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Elevated deck – Design by Terrasse Nature, Antony (France)
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Main local names

Country	Local name
Cameroon	Obang
Central African Republic	Obang
Congo	Obang
Côte d'Ivoire	Assaméla
Democratic Republic of the Congo	Bohala
Democratic Republic of the Congo	Bohélé
Democratic Republic of the Congo	Moholé
Democratic Republic of the Congo	Olé
France (importated tropical timber)	Assaméla
France (importated tropical timber)	Oleo pardo
Ghana	Afrormosia
Ghana	Kokrudua

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