

Okoume

Family. Burseraceae

Botanical Name(s).

Aucoumea klaineana

Continent. Africa

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

Description of logs

Diameter. From 60 to 120 cm

Thickness of sapwood. From 2 to 5 cm

Floats. Yes

Log durability. Moderate (treatment recommended)

Description of wood

Colour reference. Light red

Sapwood. Clearly demarcated

Texture. Fine

Grain. Straight or interlocked

Interlocked grain. Slight

Notes. More or less dark pinkish white to red brown, darkens with age. Sometimes lustrous or pearly. The grain can be slightly wavy.

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	0.44
Monnin hardness ¹	1.6
Coefficient of volumetric shrinkage	0.33 % per %
Total tangential shrinkage (St)	6.9 %
Total radial shrinkage (Sr)	4.6 %
Ratio St/Sr	1.5
Fibre saturation point	40 %
Thermal conductivity (λ)	0.16 W/(m.K)
Lower heating value	18,710 kJ/kg
Crushing strength ¹	36 MPa
Static bending strength ¹	62 MPa
Modulus of elasticity ¹	9,690 MPa

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

Natural durability and preservation

Resistance to fungi. Class 4 - poorly durable



Quarter sawn



Flat sawn

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

Resistance to termites. Class S - susceptible

Treatability. Class 3 - poorly permeable

Use class ensured by natural durability.

Class 2 - inside or under cover (dampness possible)

Notes. This species is listed in the European standard NF EN 350 (2016).

Requirement of a preservative treatment

Against dry wood borer. Does not require any preservative treatment

In case of temporary humidification. Use not recommended

In case of permanent humidification. Use not recommended

Drying

Drying rate. Rapid

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	55	84	15.5
Prewarm 2	3	> 50	57	83	15.0
Drying		> 50	60	76	12.5
		50 - 40	60	73.0	11.6
		40 - 35	60	69.0	10.7
		35 - 30	60	62.0	9.5
		30 - 27	63	55.0	8.2
		27 - 24	64	50.0	7.5
		24 - 21	65	46.0	6.9
		21 - 18	65	39.0	6.0
		18 - 15	68	32.0	5.0
		15 - 12	70	29.0	4.5
		12 - 9	70	25.0	4.0
		9 - 6	70	24.0	3.9
Conditioning	6		63	(3)	(2)
Cooling	(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. High

Sawteeth recommended. Stellite-tipped

Cutting tools. Tungsten carbide

Peeling. Good

Slicing. Good

Notes. Some difficulties in planing due to interlocked grain. Tendency to woolliness. Filling is necessary in order to obtain a good finish.

Assembling

Nailing and screwing. Good

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 D18 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

- Blockboard
- Boxes and crates
- Current furniture or furniture components
- Formwork
- Interior joinery
- Interior panelling
- Moulding
- Sliced veneer
- Veneer for back or face of plywood
- Veneer for interior of plywood



Peeled veneers in the factory of Owendo - Groupe Rougier (Gabon)

Main local names**Country**

Cameroon
Congo
Equatorial Guinea
Equatorial Guinea
Gabon
Gabon
United Kingdom (importated tropical timber)
United Kingdom (temperate timber)
United States of America (importated tropical timber)

Local name

Mfumu
N'kumi
N'goumi
Okume
Angouma
Okoumé
Gaboon
Okoume
Okoume