

Ekoune

Family. Myristicaceae

Botanical Name(s).

Coelocaryon botryoides

Coelocaryon preussii

Continent. Africa

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

Description of logs

Diameter. From 50 to 80 cm

Thickness of sapwood. -

Floats. Yes

Log durability. Low (treatment necessary)

Description of wood

Colour reference. Light brown

Sapwood. Not demarcated

Texture. Medium

Grain. Straight

Interlocked grain. Absent

Notes. Sometimes purplish brown veins.

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	0.53
Monnin hardness ¹	1.9
Coefficient of volumetric shrinkage	0.44 % per %
Total tangential shrinkage (St)	6.9 %
Total radial shrinkage (Sr)	3.8 %
Ratio St/Sr	1.8
Fibre saturation point	25 %
Thermal conductivity (λ)	0.18 W/(m.K)
Lower heating value	
Crushing strength ¹	38 MPa
Static bending strength ¹	73 MPa
Modulus of elasticity ¹	12,460 MPa

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

Natural durability and preservation

Resistance to fungi. Class 5 - not durable



Quarter sawn



Flat sawn

Resistance to dry wood borers. Class S - susceptible (risk in all the wood)

Resistance to termites. Class S - susceptible

Treatability. Class 1 - easily permeable

Use class ensured by natural durability.

Class 1 - inside (no dampness)

Requirement of a preservative treatment

Against dry wood borer. Requires appropriate preservative treatment

In case of temporary humidification. Requires appropriate preservative treatment

In case of permanent humidification. Use not recommended

Drying

Drying rate. Rapid

Risk of distorsion. No risk or very slight risk

Risk of casehardening. No known specific risk

Risk of checking. Slight risk

Risk of collapse. No known specific risk

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)

(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. Good

Slicing. Good

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 D30 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
- Exterior joinery
- Exterior panelling
- Fiber or particle boards
- Glued laminated
- Interior joinery
- Interior panelling
- Light carpentry
- Moulding
- Sliced veneer
- Veneer for back or face of plywood
- Veneer for interior of plywood
- Wood-ware

Notes. Could be used as substitute for OKOUME (*Aucoumea klaineana*) for plywood.

Main local names

Country	Local name
Cameroon	Nom éteng
Central African Republic	Koloméko
Congo	Kikubi-lomba
Democratic Republic of the Congo	Lomba-kumbi
Equatorial Guinea	Ekoune
Equatorial Guinea	Ekun
Gabon	Ékoune
Gabon	Ékun
Nigeria	Egbenrin