Kapokier

Quarter sawn

Flat sawn

Family. Malvaceae

Botanical Name(s).
Bombax buonopozense
Bombax flammeum (synonymous)
Bombax costatum

Continent. Africa

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

Description of logs

Diameter. From 60 to 90 cm

Thickness of sapwood. -

Floats. Yes

Log durability. Low (treatment necessary)

Description of wood

Colour reference. Pinkish white

Sapwood. Not demarcated

Texture. Coarse

Grain. Straight

Interlocked grain. Absent

Notes. Logs must be treated, extracted, sawn and dryed as soon as possible after felling. Whitish to pinkish gray. Silver figure medium to large.

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]	0.41
Monnin hardness[1]	1.1
Coefficient of volumetric shrinkage	0.32 % per %
Total tangential shrinkage (St)	5.4 %
Total radial shrinkage (Sr)	3.0 %
Ratio St/Sr	1.8
Fibre saturation point	26 %
Thermal conductivity (λ)	0.15 W/(m.K)
Lower heating value	
Crushing strength[1]	27 MPa
Static bending strength[1]	46 MPa
Modulus of elasticity[1]	6,060 MPa

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

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Natural durability and preservation

Resistance to fungi. Class 5 - not durable

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)

Notes. Liable to blue stain.

Requirement of a preservative treatment

Against dry wood borer. Requires appropriate 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. High risk

Risk of casehardening. No known specific risk

Risk of checking. High risk

Risk of collapse. No known specific risk

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. Normal

Sawteeth recommended. Ordinary or alloy steel

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Cutting tools. Ordinary

Peeling. Good

Slicing. Not recommended or without interest

Assembling

Nailing and screwing. Poor

Commercial grading

Appearance grading for sawn timbers.

SATA grading rules are infrequently applied due to specific technological properties and uses of this species.

Visual grading for structural applications

No visual grading for structural applications

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
- Floats
- Insulation
- Matches
- Moulding
- Veneer for interior of plywood

Notes. End-uses similar to those of Fromager.

Main local names

Country	Local name
Cameroon	Esodoum
Congo	Kapokier
Côte d'Ivoire	Kapokier
Côte d'Ivoire	Oba
Nigeria	Kouria

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