

Ceiba

Family. Malvaceae

Botanical Name(s).

Ceiba pentandra

Bombax pentandrum (synonymous)

Ceiba thoningii (synonymous)

Continent. Africa

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

Notes. The species *Ceiba pentandra* is found in Latin America under the name "Sumauma".

Description of logs

Diameter. From 70 to 150 cm

Thickness of sapwood. -

Floats. Yes

Log durability. Low (treatment necessary)

Description of wood

Colour reference. Creamy white

Sapwood. Not demarcated

Texture. Coarse

Grain. Interlocked

Interlocked grain. Slight

Notes. Logs must be treated, extracted, sawn and dried as soon as possible after felling. Some logs are not floatable. Wood cream white to light yellow, often with greyish 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	0.32
Monnin hardness ¹	0.8
Coefficient of volumetric shrinkage	0.36 % per %
Total tangential shrinkage (St)	6.3 %
Total radial shrinkage (Sr)	3.0 %
Ratio St/Sr	2.1
Fibre saturation point	34 %
Thermal conductivity (λ)	0.12 W/(m.K)
Lower heating value	19,090 kJ/kg
Crushing strength ¹	22 MPa
Static bending strength ¹	36 MPa



Quarter sawn



Half-quarter sawn

Modulus of elasticity ¹	5,130 MPa
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¹ At 12 % moisture content, with 1 MPa = 1 N/mm

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

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. Normal to 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. A rather slow drying is recommended due to the important moisture content when green.

Suggested drying program.

Phases	Duration (H)	MC (%) probes	T (°C)	Rh (%)	UGL (%)
Prewarm 1		> 50	58	84	15.0
Prewarm 2	3	> 50	63	81	13.5
Drying		> 50	65	72	11.0
		50 - 40	68	68.0	10.1
		40 - 35	68	62.0	9.0
		35 - 30	70	60.0	8.5
		30 - 27	72	54.0	7.6
		27 - 24	72	50.0	7.0
		24 - 21	74	43.0	6.1
		21 - 18	74	36.0	5.2
		18 - 15	75	31.0	4.5
		15 - 12	75	28.0	4.2
		12 - 9	75	25.0	3.8
		9 - 6	75	24.0	3.6
Conditioning	6		68	(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. Not recommended or without interest

Notes. Fuzzy surface. Keep sharp tools to obtain a better finish.

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)

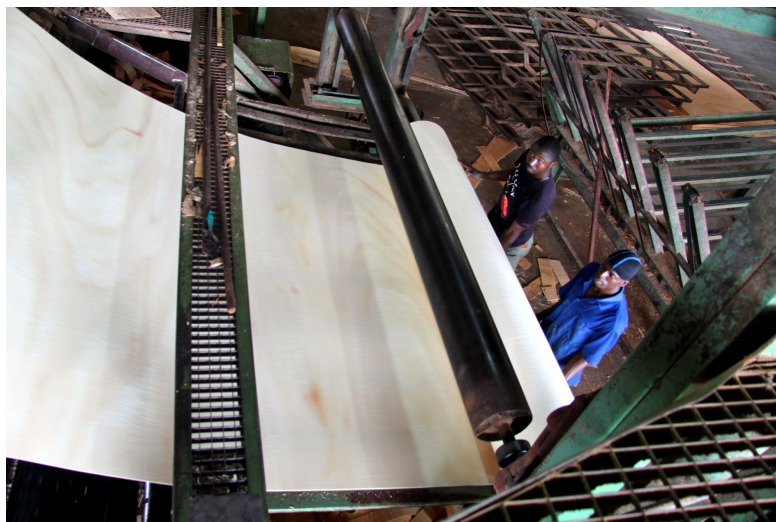
Thickness < 14 mm: M4 (easily inflammable)

Euroclasses grading. hors classement

Specific gravity lower than 0.35

End-uses

- Blockboard
- Boxes and crates
- Current furniture or furniture components
- Insulation
- Moulding
- Veneer for interior of plywood



Peeling of Fromager – Tropical wood, Adzopé (Côte d'Ivoire).

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Main local names

Country

Benin
Benin
Cameroon
Cameroon
Central African Republic
Congo
Côte d'Ivoire
Côte d'Ivoire
Democratic Republic of the Congo
France (importated tropical timber)
Gabon
Germany (importated tropical timber)
Ghana
Ghana
Liberia
Netherlands (importated tropical timber)
Nigeria
Nigeria
Sierra Leone
Sierra Leone
United Kingdom (importated tropical timber)
United States of America (importated tropical timber)

Local name

Adjolohutin
Hutin
Bouma
Doum
Gila
Fuma
Énia
Fromager
Fuma
Fromager
Odouma
Ceiba
Ceiba
Onyina
Ghe
Kakantrie
Araba
Okha
Banda
Ngwe
Ceiba
Silk cotton-tree