

Alstonia

Family. Apocynaceae

Botanical Name(s).

Alstonia boonei

Alstonia congensis

Alstonia gillettii (synonymous)

Continent. Africa

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

Description of logs

Diameter. From 70 to 100 cm

Thickness of sapwood. -

Floats. Yes

Log durability. Low (treatment necessary)

Description of wood

Colour reference. Creamy white

Sapwood. Not demarcated

Texture. Medium

Grain. Straight

Interlocked grain. Absent

Notes. Frequent brittleheart. Grain sometimes wavy. Frequent latex canals. Unpleasant odour when green.

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	0.36
Monnin hardness ¹	0.7
Coefficient of volumetric shrinkage	0.37 % per %
Total tangential shrinkage (St)	5.2 %
Total radial shrinkage (Sr)	3.8 %
Ratio St/Sr	1.4
Fibre saturation point	32 %
Thermal conductivity (λ)	0.13 W/(m.K)
Lower heating value	
Crushing strength ¹	27 MPa
Static bending strength ¹	43 MPa
Modulus of elasticity ¹	8,090 MPa

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

Notes. Properties similar to those of OBECHE (*Triplochiton scleroxylon*).



Quarter sawn



Flat sawn

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. Very prone to blue stain.

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. Slight risk

Risk of casehardening. No known specific risk

Risk of checking. No risk or very 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	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. The presence of latex may cause the clogging of sawblades.

Assembling

Nailing and screwing. Poor

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 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
- Interior joinery
- Matches
- Moulding
- Open boats
- Pencils
- Veneer for interior of plywood

Notes. Can be used as substitute for OBECHE (*Triplochiton scleroxylon*) but yield is often low due to latex canals.

Main local names

Country	Local name
Benin	Afatin
Cameroon	Ékouk
Cameroon	Ékuk
Central African Republic	Mogouga
Congo	Tsongoti
Côte d'Ivoire	Abale
Côte d'Ivoire	Émien
Democratic Republic of the Congo	Akuka
Equatorial Guinea	Ekouk
Equatorial Guinea	Ekuk

Gabon	Ékouk
Gabon	Ékuk
Ghana	Sindru
Ghana	Sinduro
Nigeria	Ahun
Nigeria	Awun
Sierra Leone	Kaiwi
Uganda	Mujwa
United Kingdom (importated tropical timber)	Alstonia
United Kingdom (importated tropical timber)	Pattern wood
United Kingdom (importated tropical timber)	Stoolwood