

African cordia

Family. Boraginaceae

Botanical Name(s).

Cordia africana

Cordia abyssinica (synonymous)

Cordia holstii (synonymous)

Cordia millenii

Cordia platythyrsa

Cordia p.p.

Continent. Africa

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

Description of logs

Diameter. From 50 to 100 cm

Thickness of sapwood. From 4 to 6 cm

Floats. Yes

Log durability. Moderate (treatment recommended)

Description of wood

Colour reference. Light brown

Sapwood. Not clearly demarcated

Texture. Medium

Grain. Straight or interlocked

Interlocked grain. Slight

Notes. Light brown to pale golden brown, sometimes pinkish brown. Aromatic odour for green wood. Medium to coarse texture.

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	0.50
Monnin hardness ¹	1.3
Coefficient of volumetric shrinkage	0.25 % per %
Total tangential shrinkage (St)	4.6 %
Total radial shrinkage (Sr)	3.4 %
Ratio St/Sr	1.4
Fibre saturation point	31 %
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	8,600 MPa



Quarter sawn



Half-quarter sawn

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

Natural durability and preservation

Resistance to fungi. Class 3 - moderately durable

Resistance to dry wood borers. Class D - durable (heartw. durable but sapw. not clearly demarcated)

Resistance to termites. Class D - durable

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. Requires appropriate preservative treatment

In case of permanent humidification. Use not recommended

Drying

Drying rate. Rapid

Risk of distortion. 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

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

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. 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

- Cabinetwork (high class furniture)
- Current furniture or furniture components
- Exterior joinery
- Interior joinery
- Interior panelling
- Sliced veneer
- Turned goods
- Wood-ware

Notes. Filling is recommended to obtain a good finish.

Main local names

Country	Local name
Cameroon	Ébais
Cameroon	Ébé
Democratic Republic of the Congo	Sumba
France (importated tropical timber)	Cordia d'afrique
Gabon	Ébais
Gabon	Ébé
Germany (importated tropical timber)	African cordia
Nigeria	Omo
United Kingdom (importated tropical timber)	African cordia