

Guarea, Scented* / Bossé clair

Family. Meliaceae

Botanical Name(s).

Guarea cedrata

Guarea laurentii

Guarea p.p.

Continent. Africa

CITES.

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

Notes. * : Common commercial name. *G. cedrata* and *G. laurentii* are called light BOSSE; *G. thompsonii* is called dark BOSSE.

Description of logs

Diameter. From 60 to 100 cm

Thickness of sapwood. From 5 to 10 cm

Floats. No

Log durability. Moderate (treatment recommended)

Description of wood

Colour reference. Pinkish brown

Sapwood. Clearly demarcated

Texture. Fine

Grain. Interlocked

Interlocked grain. Slight

Notes. Irregular or wavy grain. Wood pinkish brown. Slightly moire appearance. *G. cedrata* has a cedar scent and a tendency to resin exudation.

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	0.63
Monnin hardness ¹	3.5
Coefficient of volumetric shrinkage	0.36 % per %
Total tangential shrinkage (St)	6.8 %
Total radial shrinkage (Sr)	4.1 %
Ratio St/Sr	1.7 %
Fibre saturation point	31
Thermal conductivity (λ)	0.21 W/(m.K)
Lower heating value	19,810 kJ/kg
Crushing strength ¹	55 MPa
Static bending strength ¹	95 MPa



Flat sawn



Quarter sawn

Modulus of elasticity ¹	12,650 MPa
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¹At 12 % moisture content, with 1 MPa = 1 N/mm

Natural durability and preservation

Resistance to fungi. Class 2 - durable

Resistance to dry wood borers. Class D - durable (sapwood demarcated, risk limited to sapwood)

Resistance to termites. Class 5 - susceptible

Treatability. Class 4 - not permeable

Use class ensured by natural durability.

Class 3 - not in ground contact, outside

Notes. This species is listed in the European standard NF EN 350 (2016). The durability varies according to the species: for example, the wood of the species *Guarea cedrata* is moderately durable against termites. According to the European standard NF EN 335 (2013), performance length might be modified by the intensity of end-use exposition.

Requirement of a preservative treatment

Against dry wood borer. Does not require any preservative treatment

In case of temporary humidification. Does not require any preservative treatment

In case of permanent humidification. Use not recommended

Drying

Drying rate. Rapid to normal

Risk of distorsion. 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)		Arrêt	(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. Fairly high

Sawteeth recommended. Stellite-tipped

Cutting tools. Tungsten carbide

Peeling. Good

Slicing. Good

Notes. The silica content of Guarea cedrata can be high to very high. Irritant sawdust.

Assembling

Nailing and screwing. Good

Notes. Gluing Guarea cedrata may be difficult due to resin exudations.

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

- Cabinetwork (high class furniture)
- Cigar boxes
- Current furniture or furniture components
- Exterior joinery
- Exterior panelling
- Flooring
- Interior joinery
- Interior panelling
- Light carpentry
- Rolling shutters
- Ship building (planking and deck)
- Sliced veneer
- Veneer for back or face of plywood
- Veneer for interior of plywood

Notes. Filling is recommended to obtain a better finish. Resin exudations may be an inconvenient for some uses.



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Main local names

Country	Local name
Cameroon	Ebangbemwa
Central African Republic	N'zombou
Côte d'Ivoire	Bossé clair
Democratic Republic of the Congo	Bosasa
Democratic Republic of the Congo	Diambi
Gabon	Ossoung
Germany (importated tropical timber)	Bosse
Germany (importated tropical timber)	Diambi
Ghana	Kwabohoro
Nigeria	Obobo nofua
United Kingdom (importated tropical timber)	Scented guarea