

Lati

Family. Leguminosae (Caesalpiniaceae)

Botanical Name(s).

Amphimas ferrugineus

Amphimas pterocarpoides

Continent. Africa

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

Description of logs

Diameter. From 80 to 100 cm

Thickness of sapwood. From 5 to 8 cm

Floats. No

Log durability. Low (treatment necessary)

Description of wood

Colour reference. Yellow brown

Sapwood. Not clearly demarcated

Texture. Coarse

Grain. Straight

Interlocked grain. Absent

Notes. Heartwood cream white to yellow brown. The presence of parenchyma bands regularly spaced gives an aesthetic aspect to sawnwoods.

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	0.82
Monnin hardness ¹	5.8
Coefficient of volumetric shrinkage	0.69 % per %
Total tangential shrinkage (St)	10.8 %
Total radial shrinkage (Sr)	6.4 %
Ratio St/Sr	1.7
Fibre saturation point	30 %
Thermal conductivity (λ)	0.27 W/(m.K)
Lower heating value	19,580 kJ/kg
Crushing strength ¹	73 MPa
Static bending strength ¹	128 MPa
Modulus of elasticity ¹	16,830 MPa

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

Notes. Hardness varies from fairly hard to hard.



Quarter sawn



Flat sawn

Natural durability and preservation

Resistance to fungi. Class 3 - moderately durable

Resistance to dry wood borers. Class S - susceptible (risk in all the wood)

Resistance to termites. Class M - moderately durable

Treatability. Class 4 - not 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). 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. Slow

Risk of distorsion. High risk

Risk of casehardening. Yes

Risk of checking. High risk

Risk of collapse. No known specific risk

Notes. Initial surface drying prior to kiln drying is recommended.

Suggested drying program.

Phases	Duration (H)	MC (%) probes	T (°C)	Rh (%)	UGL (%)
Prewarm 1		> 50	50	87	17.0
Prewarm 2	4	> 50	50	86	16.5
Drying		> 50	53	85	15.7
		50 - 40	53	82.0	14.6
		40 - 35	54	78.0	13.4
		35 - 30	55	77.0	12.9
		30 - 27	57	73.0	11.9
		27 - 24	58	68.0	10.7
		24 - 21	60	61.0	9.3
		21 - 18	62	52.0	7.9
		18 - 15	64	43.0	6.6
		15 - 12	65	39.0	6.0
		12 - 9	65	31.0	5.0
		9 - 6	65	28.0	4.5
Conditioning	8		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. Not recommended or without interest

Slicing. Good

Notes. Sawing may require power. Grain tearing in machining.

Assembling

Nailing and screwing. Good but pre-boring necessary

Notes. High specific gravity: gluing must be especially performed in compliance with the code of practice.

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

- Boxes and crates
- Current furniture or furniture components
- Flooring
- Interior joinery
- Interior panelling
- Moulding
- Sliced veneer
- Wood frame house

Notes. Aspect quite similar to EYONG (*Eribroma oblonga*).



Office wardrobe, CIRAD, Montpellier (France).

© Daniel Guibal - Cirad

Main local names

Country	Local name
Cameroon	Edjin
Cameroon	Edzil
Congo	Muizi
Côte d'Ivoire	Lati
Democratic Republic of the Congo	Bokanga
Gabon	Edzui
Ghana	Yaya