

Pterygota

Family. Malvaceae

Botanical Name(s).

Pterygota bequaertii

Pterygota macrocarpa

Continent. Africa

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

Description of logs

Diameter. From 80 to 90 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 or interlocked

Interlocked grain. Slight

Notes. The tree has sometimes large buttresses. Some logs are not floatable. Wood cream white to light yellow, attractive flecked aspect on quartersawn. 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	0.59
Monnin hardness ¹	2.5
Coefficient of volumetric shrinkage	0.57 % per %
Total tangential shrinkage (St)	9.6 %
Total radial shrinkage (Sr)	4.5 %
Ratio St/Sr	2.1
Fibre saturation point	25 %
Thermal conductivity (λ)	0.20 W/(m.K)
Lower heating value	16,820 kJ/kg
Crushing strength ¹	54 MPa
Static bending strength ¹	96 MPa
Modulus of elasticity ¹	13,140 MPa

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

Natural durability and preservation



Quarter sawn



Flat sawn

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). 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. Normal

Risk of distorsion. High risk

Risk of casehardening. No known specific risk

Risk of checking. High risk

Risk of collapse. No known specific risk

Notes. Risks of discoloration (oxydation) and blue stain during drying.

Suggested drying program.

Phases	Duration (H)	MC (%) probes	T (°C)	Rh (%)	UGL (%)
Prewarm 1		> 50	55	84	15.5
Prewarm 2	3	> 50	57	83	15.0
Drying		> 50	60	76	12.5
		50 - 40	60	73.0	11.6
		40 - 35	60	69.0	10.7
		35 - 30	60	62.0	9.5
		30 - 27	63	55.0	8.2
		27 - 24	64	50.0	7.5
		24 - 21	65	46.0	6.9
		21 - 18	65	39.0	6.0
		18 - 15	68	32.0	5.0
		15 - 12	70	29.0	4.5
		12 - 9	70	25.0	4.0
		9 - 6	70	24.0	3.9
Conditioning	6		63	(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

Notes. Tendency to woolliness in machining. Good finish with filling.

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

- Blockboard
- Boxes and crates
- Current furniture or furniture components
- Fiber or particle boards
- Glued laminated
- Interior joinery
- Interior panelling
- Light carpentry
- Moulding
- Seats
- Sliced veneer
- Veneer for back or face of plywood
- Wood frame house
- Wood-ware

Notes. Steaming may colour KOTO veneers.

Main local names

Country	Local name
Benin	Ofete
Cameroon	Éfok ayus
Central African Republic	Kakendé
Côte d'Ivoire	Koto
Democratic Republic of the Congo	Ikame
Gabon	Aké

Germany (importated tropical timber)

Ghana

Ghana

Nigeria

Nigeria

United Kingdom (importated tropical timber)

United Kingdom (importated tropical timber)

Anatolia

Awari

Kyere

Keke

Poroposo

African pterygota

Pterygota