

Abarco

Family. Lecythidaceae

Botanical Name(s).

Cariniana pyriformis

Continent. Latin America

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

Description of logs

Diameter. From 70 to 120 cm

Thickness of sapwood. From 5 to 7 cm

Floats. Yes

Log durability. Moderate (treatment recommended)

Description of wood

Colour reference. Brown

Sapwood. Clearly demarcated

Texture. Medium

Grain. Straight or interlocked

Interlocked grain. Slight

Notes. Heartwood pink brown slightly purplish. Sometimes presence of traumatic canals.

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	0.68
Monnin hardness ¹	4.5
Coefficient of volumetric shrinkage	0.49 % per %
Total tangential shrinkage (St)	6.6 %
Total radial shrinkage (Sr)	4.8 %
Ratio St/Sr	1.4
Fibre saturation point	29 %
Thermal conductivity (λ)	0.23 W/(m.K)
Lower heating value	
Crushing strength ¹	61 MPa
Static bending strength ¹	113 MPa
Modulus of elasticity ¹	13,720 MPa

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

Natural durability and preservation

Resistance to fungi. Class 3 - moderately durable



Quarter sawn



Flat sawn

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

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)

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. Normal to slow

Risk of distorsion. Slight risk

Risk of casehardening. No known specific risk

Risk of checking. Slight risk

Risk of collapse. No known specific risk

Notes. Sometimes high risks of distortion and checking.

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	83	15.2
		50 - 40	53	80.0	14.1
		40 - 35	54	80.0	13.9
		35 - 30	55	75.0	12.5
		30 - 27	57	70.0	11.0
		27 - 24	58	61.0	9.4
		24 - 21	59	51.0	7.9
		21 - 18	60	47.0	7.3
		18 - 15	61	39.0	6.1
		15 - 12	62	35.0	5.6
		12 - 9	62	30.0	5.0
		9 - 6	62	26.0	4.4
Conditioning	8		55	(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. High

Sawteeth recommended. Stellite-tipped

Cutting tools. Tungsten carbide

Peeling. Good

Slicing. Good

Notes. Fairly difficult to saw because of its silica content.

Assembling

Nailing and screwing. Good but pre-boring necessary

Notes. Tends to split when nailing.

Commercial grading

Appearance grading for sawn timbers.

According to ATIBT grading rules, possible grade: FAS (First And Second), n°1 Common and select, n°2 Common

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
- Flooring
- Glued laminated
- Interior joinery
- Interior panelling
- Light carpentry
- Ship building (planking and deck)
- Sliced veneer
- Turned goods
- Veneer for back or face of plywood
- Wood frame house

Notes. Substitute for MAHOGANY (*Swietenia p.p.*) and AFRICAN MAHOGANY (*Khaya p.p.*). Filling is required to obtain a good finish.

Main local names

Country	Local name
Colombia	Abarco
Venezuela	Bacu