

Common name:	FREIJO
Family:	BORAGINACEAE
Scientific name(s):	Cordia goeldiana

LOG DESCRIPTION		WOOD DESCRIPTION	
Diameter:	from 50 to 90 cm	Colour:	Light brown
Thickness of sapwood:	from 2 to 4 cm	Sapwood:	Clearly demarcated
Floats:	yes	Texture:	Medium
Durability in forest :	Moderate (treatment recommended)	Grain:	Straight or interlocked
		Interlocked grain:	Slight
Note:	Wood grey yellow to grey brown or golden brown sometimes with darker veins. Large silver figure.		

PHYSICAL PROPERTIES			MECHANICAL PROPERTIES		
Physical and mechanical properties are based on mature heartwood specimens. These properties can vary greatly depending on origin and growth conditions.					
	mean	standard deviation		mean	standard deviation
Density *:	0.58 g/cm ³	0.03			
Monnin hardness*:	2.3	0.3	Crushing strength *:	48 MPa	7
Coef of volumetric shrinkage:	0.55 %	0.08	Static bending strength *:	86 MPa	7
Total tangential shrinkage:	6.3 %	1.1	Modulus of elasticity *:	17270 MPa	2500
Total radial shrinkage:	4.3 %	1.0			
Fibre saturation point:	22 %				
Stability:	Moderately stable		(* : at 12 % moisture content ; 1 MPa = 1 N/mm ²)		

NATURAL DURABILITY AND TREATABILITY

Fungi and termite resistance refers to end-uses under temperate climate.
 Except for special comments on sapwood, natural durability is based on mature heartwood.
 Sapwood must always be considered as non-durable against wood degrading agents.

Fungi:	Class 2 - durable	* ensured by natural durability (according EN standards).
Dry wood borers:	Durable; sapwood demarcated (risk limited to sapwood)	
Termites:	Class M - Moderately durable	
Treatability:	3 - poorly permeable	
Use class*:	3 - not in ground contact, outside	
Note:	This species is listed in the European standard NF EN 350-2. According to the European standard NF EN 335, performance length might be modified by the intensity of end-use exposition.	

MAIN LOCAL NAMES

Countries	Local names
Brazil	FREIJO
Brazil	FREI-JORGE
U.S.A.	CORDIA WOOD
U.S.A.	JENNY WOOD

FREIJO

REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks:	Does not require any preservative treatment
In case of temporary humidification risk:	Does not require any preservative treatment
In case of permanent humidification risk:	Use not recommended

DRYING

Possible drying schedule

Drying rate:	Rapid	Temperature (°C)			Air humidity (%)
		M.C. (%)	dry-bulb	wet-bulb	
Risk of distortion:	Slight risk	Green	50	47	84
Risk of casehardening:	No	40	50	45	75
Risk of checking:	Slight risk	30	55	47	67
Risk of collapse:	No	20	70	55	47
		15	75	58	44

This schedule is given for information only and is applicable to thickness < 38 mm.

It must be used in compliance with the code of practice.

For thickness from 38 to 75 mm , the air relative humidity should be increased by 5 % at each step.

For thickness over 75 mm , a 10 % increase should be considered.

Note: Slight tendency to end checks.

SAWING AND MACHINING

Blunting effect:	Normal
Sawteeth recommended:	Ordinary or alloy steel
Cutting tools:	Ordinary
Peeling:	Good
Slicing:	Good
Note:	Sometimes, grain tearing. Sharp tools are necessary to avoid woolliness.

ASSEMBLING

Nailing / Screwing:	Good but pre-boring necessary
Gluing:	Correct
Note:	Tends to split when nailing.

END-USES

Main known end-uses; they must to be implemented according to the code of practice.

Important remark: some end-uses are mentionned for information (traditional, regional or ancient end-uses).

Cabinetwork (high class furniture)

Sliced veneer

Veneer for back or face of plywood

Exterior joinery

Interior joinery

Interior panelling

Exterior panelling

Current furniture or furniture components

Light carpentry

Glued laminated

Ship building (planking and deck)

Vehicle or container flooring
