

Common name:	JATOBA
Family:	CAESALPINIACEAE
Scientific name(s):	Hymenaea courbaril Hymenaea intermedia Hymenaea martiana Hymenaea oblongifolia Hymenaea parvifolia

LOG DESCRIPTION		WOOD DESCRIPTION	
Diameter:	from 50 to 80 cm	Colour:	Red brown
Thickness of sapwood:	from 3 to 12 cm	Sapwood:	Clearly demarcated
Floats:	no	Texture:	Medium
Durability in forest :	Moderate (treatment recommended)	Grain:	Straight or interlocked
Note:	Slight internal stresses. The colour can vary from purple brown or orangey brown to red brown slightly veined.	Interlocked grain:	Slight

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 *:	0.94 g/cm <sup>3</sup>	0.13			
Monnin hardness*:	10.5	2.6	Crushing strength *:	97 MPa	15
Coef of volumetric shrinkage:	0.59 %	0.11	Static bending strength *:	160 MPa	31
Total tangential shrinkage:	7.5 %	1.2	Modulus of elasticity *:	23460 MPa	6002
Total radial shrinkage:	3.9 %	1.4			
Fibre saturation point:	23 %				
Stability:	Moderately stable to stable		(* : at 12 % moisture content ; 1 MPa = 1 N/mm <sup>2</sup> )		
Note:	H. intermedia and H. parvifolia are heavier and more resistant.				

#### 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 2-3 durable to moderately durable	* ensured by natural durability (according EN standards).
Dry wood borers:	Durable; sapwood demarcated (risk limited to sapwood)	
Termites:	Class M - Moderately durable	
Treatability:	4 - not permeable	
Use class*:	3 - not in ground contact, outside	
Note:	Resistance to fungi and to termites is variable according to the species. 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	JATAI
Brazil	JATOBA
Brazil	JUTAI
Brazil	JUTAI AÇU
Brazil	JUTAI ROXO
Colombia	ALGARROBO
French Guiana	COURBARIL
Guyana	LOCUST
Peru	AZUCAR-HUAYO
Surinam	RODE LOKUS
Venezuela	ALGARROBO
France	COURBARIL
United Kingdom	LOCUST

**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

	Normal	Temperature (°C)			Air humidity (%)
		M.C. (%)	dry-bulb	wet-bulb	
Drying rate:	Normal				
Risk of distortion:	Slight risk				
Risk of casehardening:	No				
Risk of checking:	Slight risk	Green	42	39	82
Risk of collapse:	No	50	48	43	74
		40	48	43	74
		30	48	43	74
		15	54	46	63

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: Initial air drying under cover prior to kiln drying is recommended. Risks of cracks more or less important according to specific gravity.

**SAWING AND MACHINING**

Blunting effect:	Fairly high
Sawteeth recommended:	Stellite-tipped
Cutting tools:	Tungsten carbide
Peeling:	Not recommended or without interest
Slicing:	Good
Note:	Due to hardness, the use of stellite is recommended for industrial production.

**ASSEMBLING**

Nailing / Screwing:	Good but pre-boring necessary
Gluing:	Correct (for interior only)
Note:	Gluing must be done with care (very dense wood).

**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).

Note: End-uses under permanent humidification (contact with water or with ground) are possible with the species presenting a very good durability.

Cabinetwork (high class furniture) Cooperage

Current furniture or furniture components

Sliced veneer

Industrial or heavy flooring

Flooring

Stairs (inside)

Wood frame house

Exterior joinery

Exterior panelling

Interior panelling

Tool handles (resilient woods)

Turned goods

Ship building (ribs)

Vehicle or container flooring

Musical instruments

Arched goods

Wood-ware

Sculpture

Moulding