

Family: FABACEAE (angiosperm)

Scientific name(s): *Lonchocarpus castilloi*

Commercial restriction: no commercial restriction

## WOOD DESCRIPTION

Color: yellow brown  
 Sapwood: clearly demarcated  
 Texture: medium to coarse  
 Grain: straight to irregular  
 Interlocked grain: slight in general, more pronounced for some logs  
 Note: Yellowish-brown to reddish brown. Occasionally with dark streaks. Growth rings visible.

## LOG DESCRIPTION

Diameter: from 50 to 80 cm  
 Thickness of sapwood: from 2 to 5 cm  
 Floats: no  
 Log durability: good

## PHYSICAL PROPERTIES

Physical and mechanical properties are based on mature heartwood specimens. These properties can vary greatly depending on origin and growth conditions.

## MECHANICAL AND ACOUSTIC PROPERTIES

	<u>Mean</u>	<u>Std dev.</u>		<u>Mean</u>	<u>Std dev.</u>
Specific gravity *:	0.91	0.02	Crushing strength *:	77 MPa	15 MPa
Monnin hardness *:	8.0	1	Static bending strength *:	173 MPa	19 MPa
Coeff. of volumetric shrinkage:	0.50 %	0.05 %	Modulus of elasticity *:	16.000 MPa	5.600 MPa
Total tangential shrinkage (TS):	6.2 %	0.5 %	(*: at 12% moisture content, with 1 MPa = 1 N/mm <sup>2</sup> )		
Total radial shrinkage (RS):	3.4 %	0.4 %			
TS/RS ratio:	1.8		Musical quality factor: -		
Fiber saturation point:	21 %				
Stability: stable					

## 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.

E.N. = Euro Norm

Fungi (according to E.N. standards): class 1 - very durable

Dry wood borers: class D - durable (sapwood demarcated, risk limited to sapwood)

Termites (according to E.N. standards): class D - durable

Treatability (according to E.N. standards): class 4 - not permeable

Use class ensured by natural durability: class 4 - in ground or fresh water contact

Species covering the use class 5: yes

Note: This species naturally covers the use class 5 (end-uses in marine environment or in brackish water) due to its high specific gravity and its repulsive extracts content.

According to the European standard NF EN 335 (2013), performance length might be modified by the intensity of end-use exposition.

## REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks: does not require any preservative treatment

In case of risk of temporary humidification: does not require any preservative treatment

In case of risk of permanent humidification: does not require any preservative treatment

## DRYING

Drying rate: normal to slow

Risk of distortion: slight risk

Risk of casehardening: no

Risk of checking: slight risk

Risk of collapse: no

Note: Drying must be slow and careful in order to reduce defects.

## POSSIBLE DRYING SCHEDULE

M.C. (%)	Temperature (°C)		Air humidity (%)
	dry-bulb	wet-bulb	
Green	40	37	82
40	44	38	68
30	44	36	59
20	46	36	52
15	49	37	46



*This drying schedule is given for information only and is applicable to thickness lower or equal to 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.*

## SAWING AND MACHINING

Blunting effect: fairly high

Sawteeth recommended: stellite-tipped

Cutting tools: tungsten carbide

Peeling: without interest

Slicing: good

Note: Some difficulties due to interlocked grain.

## ASSEMBLING

Nailing / screwing: good but pre-boring necessary

Gluing: correct (for interior only)

## COMMERCIAL GRADING

Appearance grading for sawn timbers: According to NHLA grading rules (January 2007)  
Possible grading: FAS, Select, Common 1, Common 2, Common 3

## 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 annex C (April 2009). It concerns structural graded timber in vertical uses with mean density upper 0.35 and thickness upper 22 mm.

## END-USES

Hydraulic works (seawater)

Bridges (parts in contact with water or ground)

Exterior joinery

Interior panelling

Flooring

Poles

Cabinetwork (high class furniture)

Shingles

Vehicle or container flooring

Ship building (planking and deck)

Stairs (inside)

Wood frame house

Sleepers

Bridges (parts not in contact with water or ground)

Interior joinery

Exterior panelling

Sliced veneer

Current furniture or furniture components

Seats

Turned goods

Ship building (ribs)

Open boats

Heavy carpentry



*This list presents main known end-uses; they must be implemented according to the code of practice. Important remark: some end-uses are mentioned for information (traditional, regional or ancient end-uses).*

## MAIN LOCAL NAMES

<u>Country</u>	<u>Local name</u>	<u>Country</u>	<u>Local name</u>
Mexico	Balché Chacté Chashté Canazin Manchiche Matachiche	Belize	Cabbage bark
		Guatemala	Manchiche Manchuch