ITAUBA

Family: Lauraceae (angiosperm)
Scientific name(s): Mezilaurus itauba
Commercial restriction: no commercial restriction

WOOD DESCRIPTION

Color: yellow brown
Sapwood: not clearly demarcated
Texture: fine
Grain: straight
Interlocked grain: absent

LOG DESCRIPTION

Diameter: from 40 to 80 cm
Thickness of sapwood: from 2 to 5 cm
Floats: no
Log durability: good

Note: Oily aspect. The colour varies from yellow brown to dark lustrous brown.

PHYSICAL PROPERTIES

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

	Mean	Std dev.
Specific gravity *:	0.86	0.05
Monnin hardness *:	5.0	1.5
Coeff. of volumetric shrinkage:	0.60 %	0.10 %
Total tangential shrinkage (TS):	9.7 %	1.8 %
Total radial shrinkage (RS):	3.7 %	1.2 %
TS/RS ratio:	2.6	
Fiber saturation point:	27 %	

Stability: moderately stable

MECHANICAL AND ACOUSTIC PROPERTIES

	Mean	Std dev.
Crushing strength *:	62 MPa	10 MPa
Static bending strength *:	125 MPa	18 MPa
Modulus of elasticity *:	21020 MPa	6268 MPa

(*: at 12% moisture content, with 1 MPa = 1 N/mm²)

Musical quality factor: 132.8 measured at 2518 Hz

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 (heartw. durable but sapw. not clearly demarcated)
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 is listed in the European standard NF EN 350.
The possible presence of few demarcated sapwood in sawnwoods may have an influence on the expected durability.
This species naturally covers the use class 5 (wood permanently or regularly submerged in salt water, sea water or brackish water) due to its high specific gravity and its repulsive extracts content.
According to the European standard NF EN 335, performance length might be modified by the intensity of end-use exposition.

REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks: requires appropriate preservative treatment (for indoor use)
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: slow
Risk of distortion: slight risk
Risk of casehardening: no known specific risk
Risk of checking: high risk
Risk of collapse: no known specific risk
Note: Drying must be slow and careful in order to reduce

POSSIBLE DRYING SCHEDULE

M.C. (%)	Temperature (°C) dry-bulb	wet-bulb	Air humidity (%)
Green	42	41	94
50	48	43	74
30	54	46	63
20	60	51	62
15	60	51	62

defects.

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: not recommended or without interest
Slicing: good
Note: Some difficulties due to interlocked grain.

ASSEMBLING

Nailing / screwing: good but pre-boring necessary
Gluing: correct (for interior only)
Note: High specific gravity: gluing must be especially performed in compliance with the code of practice.

COMMERCIAL GRADING

Appearance grading for sawn timbers: According to NHLA grading rules (2015)
Possible grading: FAS, Select, Common 1, Common 2, Common 3

Visual grading for structural applications: According to French standard NF B 52-001-1 (2011), strength class D40 can be provided by visual grading.

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 (April 2016).
It concerns structural graded timber in vertical uses and ceiling 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

Country	Local name	Country	Local name
Brazil	ITAUBA	Brazil	LOURO ITAUBA
French Guiana	TAOUB	French Guiana	TAOUB JAUNE
Suriname	KANEELHOUT