TAUARI

Family: LECYTHIDACEAE (angiosperm)
Scientific name(s): Couratari spp.
Commercial restriction: no commercial restriction
Note: The TAUARI regroups several species of the genus Couratari whose properties and aspect can greatly vary.

WOOD DESCRIPTION

Color: creamy white
Sapwood: not demarcated
Texture: medium
Grain: straight
Interlocked grain: absent

LOG DESCRIPTION

Diameter: from 50 to 80 cm
Thickness of sapwood:
Floats: yes
Log durability: low (must be treated)

Note: Wood cream white, pinkish white or yellowish grey white according to the species. Unpleasant odour when green.

PHYSICAL PROPERTIES

MECHANICAL AND ACOUSTIC 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 *:	0,62	0,06
Monnin hardness *:	2,7	0,5
Coeff. of volumetric shrinkage:	0,50 %	0,06 %
Total tangential shrinkage (TS):	7,0 %	1,0 %
Total radial shrinkage (RS):	4,5 %	1,0 %
TS/RS ratio:	1,6	
Fiber saturation point:	28 %	
Stability:	moderately stable	

	Mean	Std dev.
Crushing strength *:	48 MPa	6 MPa
Static bending strength *:	87 MPa	9 MPa
Modulus of elasticity *:	14500 MPa	2976 MPa

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

Musical quality factor: 93,4 measured at 2947 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

Funghi (according to E.N. standards): class 5 - not durable
Dry wood borers: susceptible - sapwood not or slightly demarcated (risk in all the wood)
Termites (according to E.N. standards): class S - susceptible
Treatability (according to E.N. standards): class 1 - easily permeable
Use class ensured by natural durability: class 1 - inside (no dampness)
Species covering the use class 5: No
Note: Several species, with different natural durability, are grouped under the name TAUARI. Some species and origins could be used without preservative treatment for end-uses under use class 2. However, commercial lots are usually constituted by blended species. Consequently, it is advisable to use the less durable woods as a point of reference.

REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks: requires appropriate preservative treatment
In case of risk of temporary humidification: requires appropriate preservative treatment
In case of risk of permanent humidification: use not recommended

DRYING

Drying rate: rapid
Risk of distortion: no risk or very slight risk
Risk of casehardening: no
Risk of checking: no risk or very slight risk
Risk of collapse: no
Note: Must be dried as soon as possible after felling to avoid blue stain.

Possible drying schedule: 5

M.C. (%)	Temperature (°C) dry-bulb	wet-bulb	Air humidity (%)
30	42	41	94
25	42	39	82
20	48	43	74
15	48	43	74

This 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: high
Sawteeth recommended: stellite-tipped
Cutting tools: tungsten carbide
Peeling: good
Slicing: nood

ASSEMBLING

Nailing / screwing: good but pre-boring necessary
Gluing: correct

COMMERCIAL GRADING

Appearance grading for sawn timbers: According to NHLA grading rules (January 2007)
Possible grading: FAS, Select, Common 1, Common 2, Common 4
In French Guiana, the local name of this species is "MAHO CIGARE". Grading is done according to local rules "Bois guyanais classés".
Possible grading: Choix 1, choix 2, choix 3, choix 4

FIRE SAFETY

Conventional French grading: Thickness > 14 mm : M.3 (moderately inflammable)
Thickness < 14 mm : M.4 (easily inflammable)

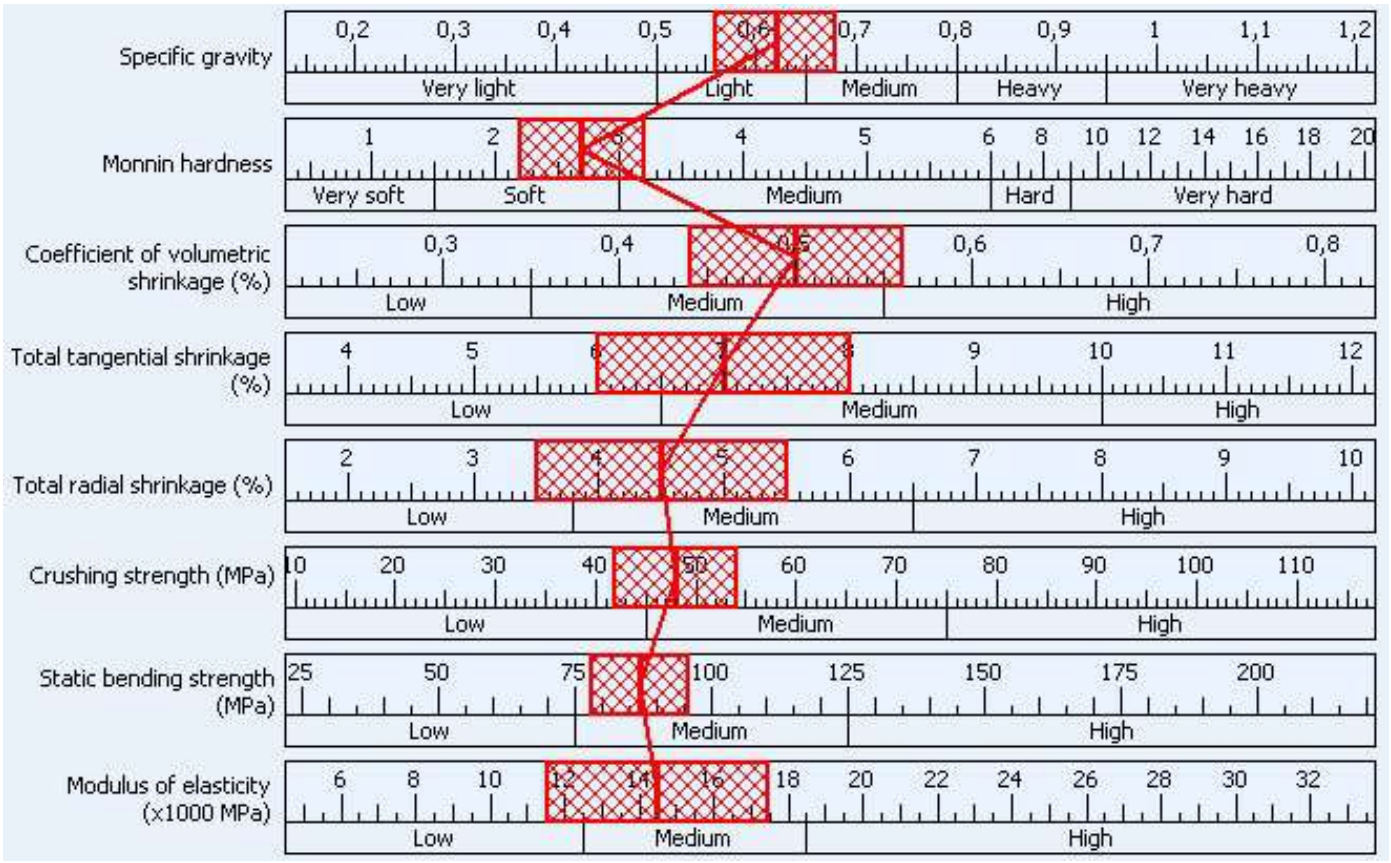
Euroclasses grading: D s2 d0
Default grading for solid wood, according to requirements of European standard EN 14081-1 annex C (April 2009). It concerns structural graded timber in vertical uses with mean density upper 0.35 and thickness upper 22 mm.

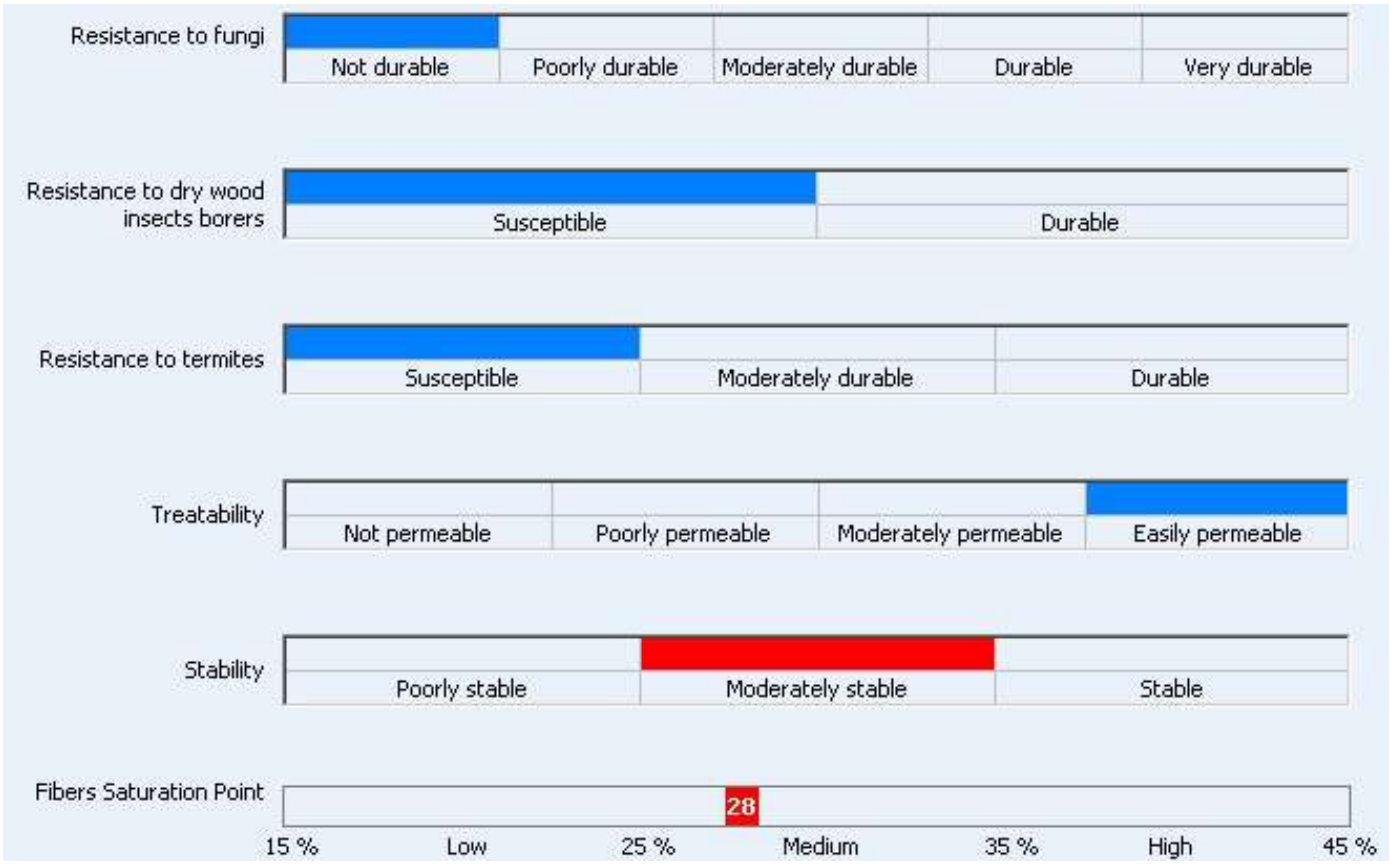
END-USES

Stairs (inside)
Blockboard
Interior panelling
Formwork
Interior joinery
Light carpentry
Flooring
Seats
Veneer for interior of plywood
Veneer for back or face of plywood
Moulding
Boxes and crates
Exterior joinery
Current furniture or furniture components
Glued laminated
Turned goods
Sliced veneer

MAIN LOCAL NAMES

Country	Local name	Country	Local name
Brazil	IMBIREMA	Brazil	TAUARI
Guyana	WADARA	French Guiana	COUATARI
French Guiana	INGUIPIPA	French Guiana	MAHO CIGARE
French Guiana	TABARI	Suriname	INGIPIPA
Venezuela	CAPA DE TABACO	Venezuela	TAMPIPIO


Specific gravity
0,2 0,3 0,4 0,5 0,6 0,7 0,8 0,9 1 1,1 1,2
Very light Light Medium Heavy Very heavy
Monnin hardness
1 2 3 4 5 6 8 10 12 14 16 18 20
Very soft Soft Medium Hard Very hard
Coefficient of volumetric shrinkage (%)
0,3 0,4 0,5 0,6 0,7 0,8
Low Medium High
Total tangential shrinkage (%)
4 5 6 7 8 9 10 11 12
Low Medium High
Total radial shrinkage (%)
2 3 4 5 6 7 8 9 10
Low Medium High
Crushing strength (MPa)
10 20 30 40 50 60 70 80 90 100 110
Low Medium High
Static bending strength (MPa)
25 50 75 100 125 150 175 200
Low Medium High
Modulus of elasticity (x1000 MPa)
6 8 10 12 14 16 18 20 22 24 26 28 30 32
Low Medium High


Resistance to fungi
Not durable Poorly durable Moderately durable Durable Very durable
Resistance to dry wood insects borers
Susceptible Durable
Resistance to termites
Susceptible Moderately durable Durable
Treatability
Not permeable Poorly permeable Moderately permeable Easily permeable
Stability
Poorly stable Moderately stable Stable
Fibers Saturation Point
28
15 % Low 25 % Medium 35 % High 45 %