AÇACU

Family: EUPHORBIACEAE (angiosperm)
Scientific name(s): Hura crepitans
Commercial restriction: no commercial restriction

WOOD DESCRIPTION

Color: creamy white
Sapwood: not clearly demarcated
Texture: coarse
Grain: straight or interlocked
Interlocked grain: slight
Note: Bark contains a very irritant sap.
Color varies from cream white to pinkish brown. Presence of tension wood.

LOG DESCRIPTION

Diameter: from 70 to 100 cm
Thickness of sapwood: from 15 to 25 cm
Floats: yes
Log durability: low (must be treated)

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 *:	0,45	0,08
Monnin hardness *:	1,5	0,7
Coeff. of volumetric shrinkage:	0,37 %	0,05 %
Total tangential shrinkage (TS):	4,7 %	0,3 %
Total radial shrinkage (RS):	2,9 %	0,5 %
TS/RS ratio:	1,6	
Fiber saturation point:	27 %	

Stability: stable

MECHANICAL AND ACOUSTIC PROPERTIES

	Mean	Std dev.
Crushing strength *:	31 MPa	7 MPa
Static bending strength *:	56 MPa	9 MPa
Modulus of elasticity *:	9600 MPa	1288 MPa

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

Musical quality factor: 116,8 measured at 2651 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: Very prone to blue stain.

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

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DRYING

Drying rate: normal to slow
Risk of distortion: high risk
Risk of casehardening: no
Risk of checking: high risk
Risk of collapse: no
Note: Slow drying is recommended (in that case, wood must be treated against blue stain) to reduce defects.

Possible drying schedule: 3

M.C. (%)	Temperature (°C) dry-bulb	wet-bulb	Air humidity (%)
Green	60	56	81
30	68	58	61
20	74	60	51
15	80	61	41

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: fairly high
Sawteeth recommended: stellite-tipped
Cutting tools: tungsten carbide
Peeling: good
Slicing: not recommended or without interest
Note: Log turning sawing recommended to avoid shakes (tension wood). Fuzzy surface. Silica content is variable according to the country of origin.

ASSEMBLING

Nailing / screwing: poor
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 3

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.

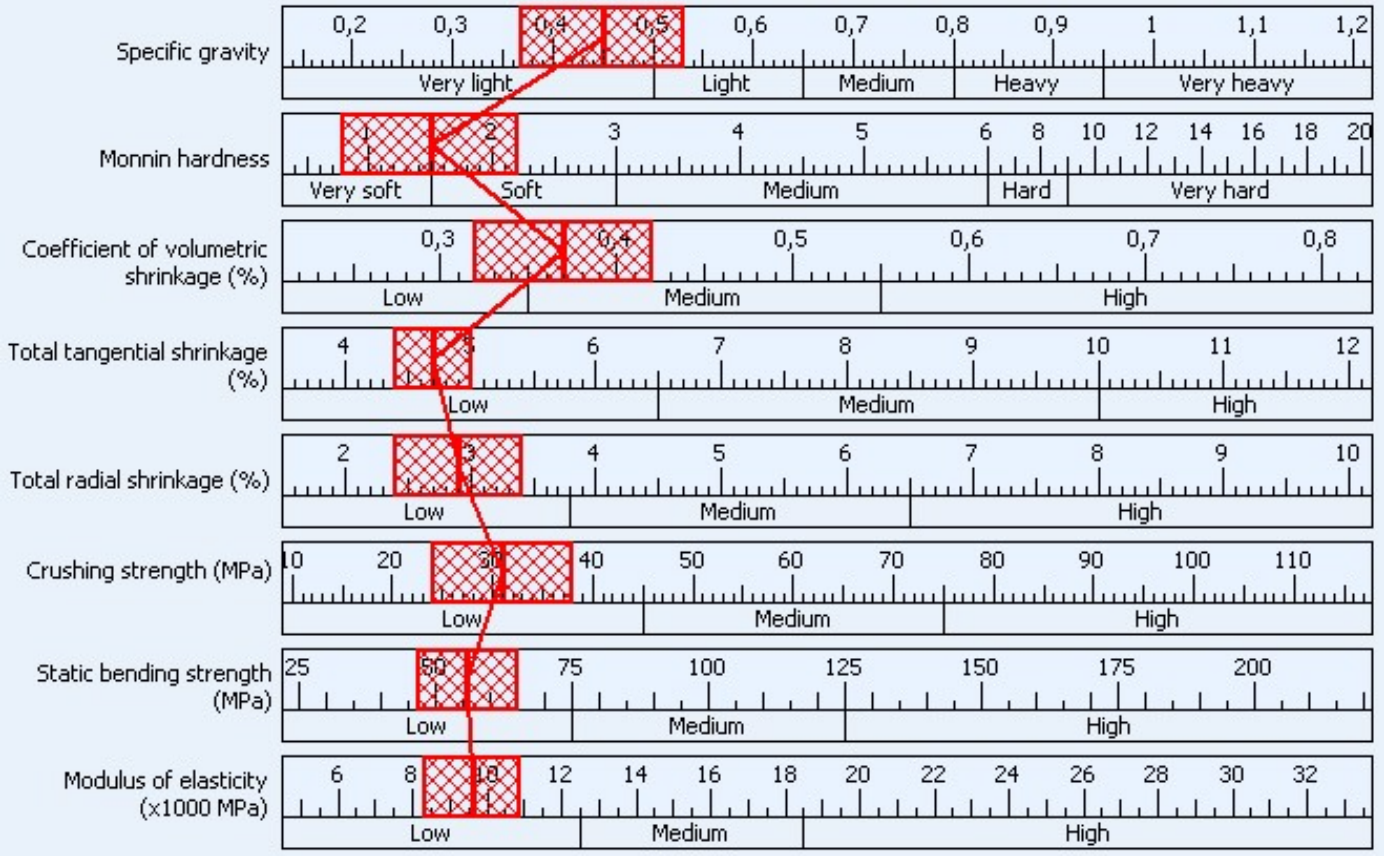
END-USES

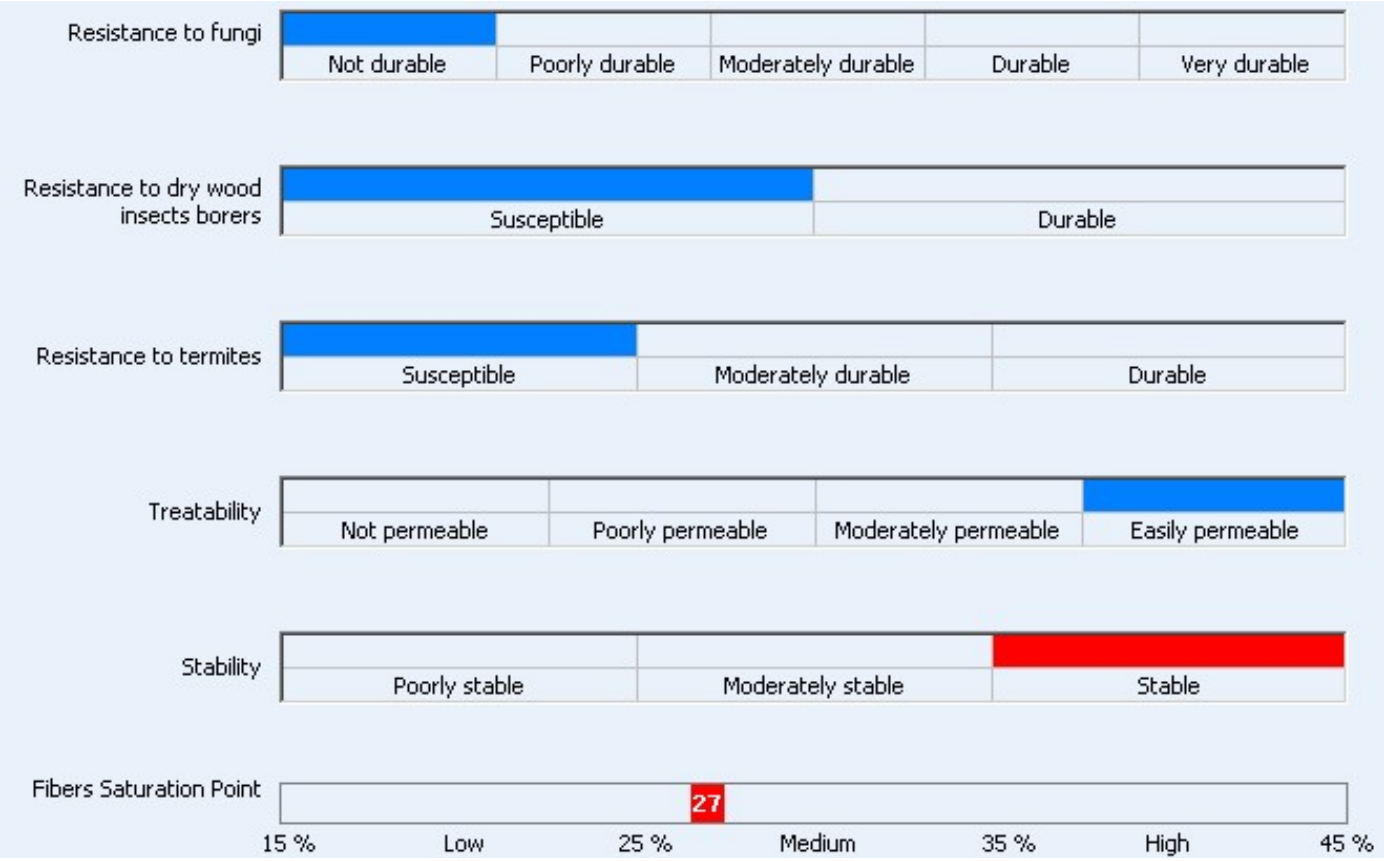
Floats
Interior joinery
Current furniture or furniture components
Veneer for interior of plywood
Matches
Wood-ware
Boxes and crates
Formwork
Blockboard
Fiber or particle boards
Model building

Note: Possible substitute for OBECHE (Triplochiton scleroxylon). A careful sanding and a filling are recommended to obtain a good finish.

MAIN LOCAL NAMES

Country	Local name	Country	Local name
Bolivia	OCHOHO	Brazil	AÇACU
Brazil	ASSACU	Colombia	CEIBA LECHOSA
Ecuador	HABILLO	Guyana	SANDBOX
French Guiana	BOIS DU DIABLE	French Guiana	SABLIER
Peru	CATAHUA	Suriname	POSSENTRIE
Suriname	POSSUM	Suriname	URA WOOD
Venezuela	CEIBA HABILLO	Venezuela	JABILLO
United States of America	POSSUMWOOD		


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
27
15 % Low 25 % Medium 35 % High 45 %