CEREJEIRA

Family: FABACEAE (angiosperm)
Scientific name(s): Amburana cearensis
Torresea cearensis (synonymous)
Commercial restriction: no commercial restriction

WOOD DESCRIPTION

Color: yellow brown
Sapwood: not clearly demarcated
Texture: coarse
Grain: straight or interlocked
Interlocked grain: slight
Note: Scent similar to vanilla. Wood sometimes veined.

LOG DESCRIPTION

Diameter: from 50 to 90 cm
Thickness of sapwood: from 5 to 8 cm
Floats: yes
Log durability: moderate (treatment recommended)

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 *:	0,59	0,06
Monnin hardness *:	2,7	0,7
Coeff. of volumetric shrinkage:	0,41 %	0,04 %
Total tangential shrinkage (TS):	4,5 %	0,7 %
Total radial shrinkage (RS):	2,4 %	0,4 %
TS/RS ratio:	1,9	
Fiber saturation point:	19 %	

Stability: stable

MECHANICAL AND ACOUSTIC PROPERTIES

	Mean	Std dev.
Crushing strength *:	45 MPa	5 MPa
Static bending strength *:	73 MPa	10 MPa
Modulus of elasticity *:	10980 MPa	1314 MPa

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

Musical quality factor: 121,3 measured at 2556 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 3 - moderately durable
Dry wood borers: susceptible - sapwood not or slightly demarcated (risk in all the wood)
Termites (according to E.N. standards): class M - moderately durable
Treatability (according to E.N. standards): class 2 - moderately permeable
Use class ensured by natural durability: class 2 - inside or under cover (dampness possible)
Species covering the use class 5: No
Note: This species is listed in the European standard NF EN 350-2.

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: slow

Risk of distortion: slight risk

Risk of casehardening: yes

Risk of checking: slight risk

Risk of collapse: no

Note: Tendency to distortion. Important risks of casehardening for thickness > 50mm.

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: normal

Sawteeth recommended: ordinary or alloy steel

Cutting tools: ordinary

Peeling: good

Slicing: nood

ASSEMBLING

Nailing / screwing: good

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

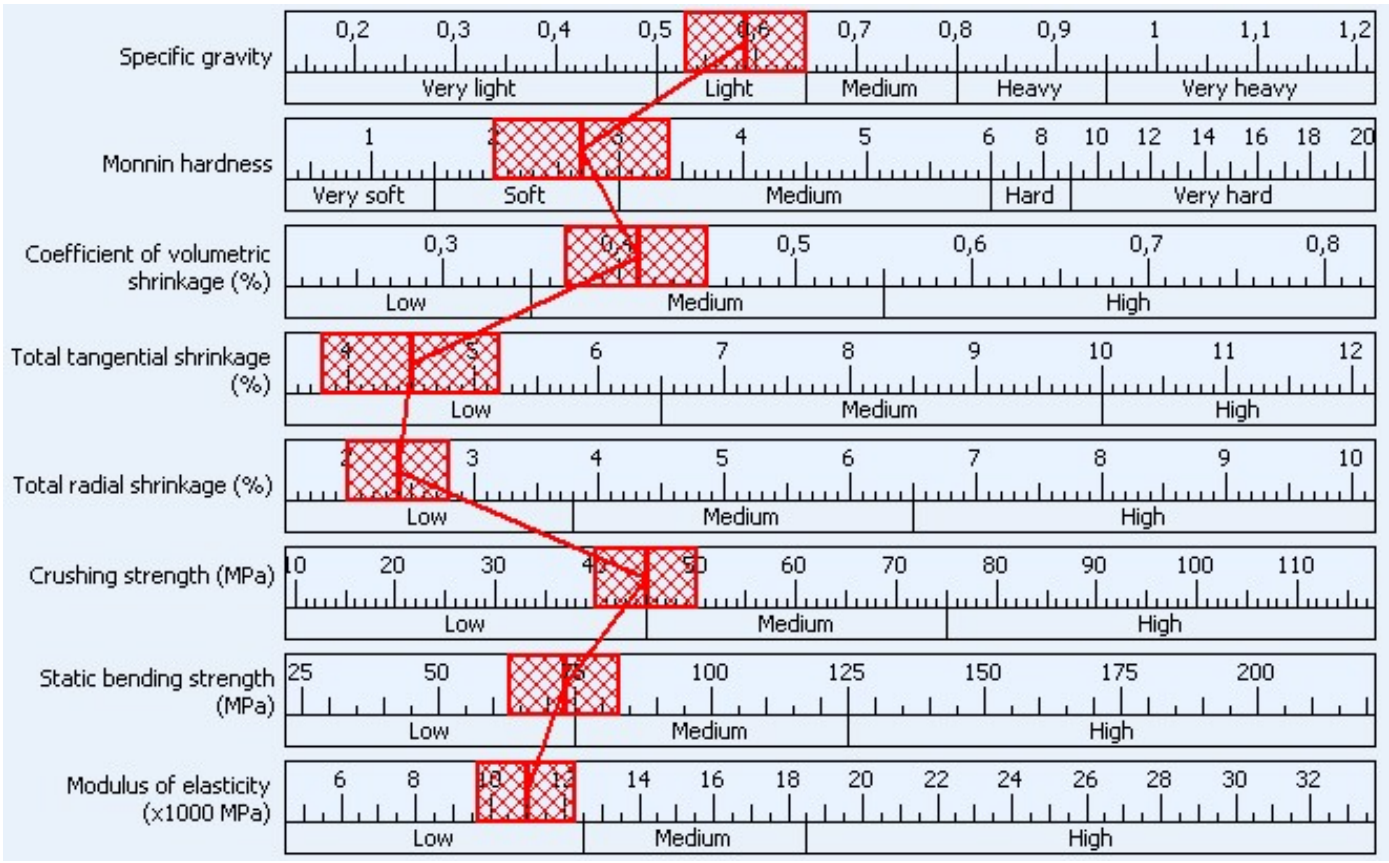
Current furniture or furniture components
Veneer for back or face of plywood
Interior joinery
Sculpture
Exterior joinery
Light carpentry
Cooperage

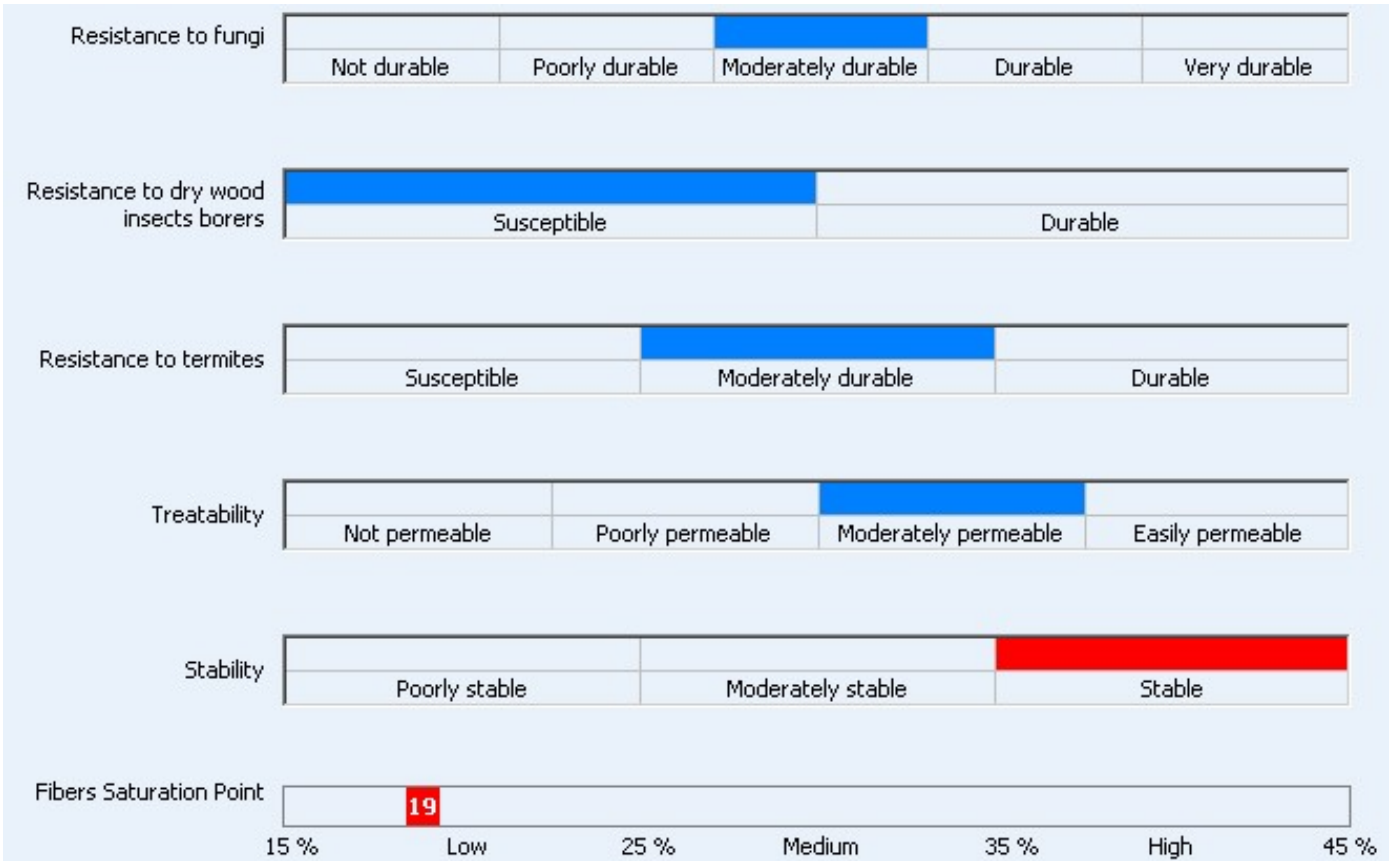
Note: Filling is recommended.

Blockboard
Sliced veneer
Moulding
Cabinetwork (high class furniture)
Interior panelling
Wood frame house

MAIN LOCAL NAMES

Country	Local name	Country	Local name
Argentina	PALO TREBOL	Argentina	ROBLE DEL PAIS
Bolivia	SORYOKO	Brazil	AMBURANA
Brazil	CEREJEIRA	Brazil	CUMARU DE CHEIRO
Brazil	IMBURANA	Peru	ISHPINGO


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
19
15 %
Low
25 %
Medium
35 %
High
45 %