Common name:	TORNILLO
Family:	MIMOSACEAE
Scientific name(s):	Cedrelinga catenaeformis

LOG DESCRIPTION

Diameter:	from 70 to 120 cm
Thickness of sapwood:	from 5 to 8 cm
Floats:	yes
Durability in forest :	Low (must be treated)
Note:	Heartwood light brown with pink or orangey glints. Grain sometimes oblique.

WOOD DESCRIPTION

Colour:	Light brown
Sapwood:	Not clearly demarcated
Texture:	Coarse
Grain:	Straight or interlocked
Interlocked grain:	Slight

PHYSICAL PROPERTIES

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

	mean	standard deviation
Density *:	0.51 g/cm3	0.08
Monnin hardness*:	2.0	1.0
Coef of volumetric shrinkage:	0.46 %	0.03
Total tangential shrinkage:	6.9 %	0.9
Total radial shrinkage:	3.8 %	0.7
Fibre saturation point:	29 %	
Stability:	Moderately stable	
Note:	TORNILLO properties vary according to the origin.	

MECHANICAL PROPERTIES

	mean	standard deviation
Crushing strength *:	38 MPa	8
Static bending strength *:	70 MPa	13
Modulus of elasticity *:	10900 MPa	942

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

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.

Fungi:	Class 3 - moderately durable
Dry wood borers:	Susceptible; sapwood not or slightly demarcated (risk in all the wood)
Termites:	Class S - Susceptible
Treatability:	2-3 - poorly to moderately permeable
Biological hazard class*:	2 - not in ground contact, under cover (dampness possible)
Note:	This species is listed in the European standard NF EN 350-2.

* ensured by natural durability (according EN standards).

COUNTRIES - LOCAL NAMES

Countries	Local names
Brazil	CEDRORANA
Colombia	ACHAPO
Colombia	CEDRORANA
Ecuador	CHUNCHO
Ecuador	SEIQUE
Ecuador	SEIQUI
Ecuador	TSAIK
French Guiana	DON CEDE
Peru	CEDRO TORNILLO
Peru	HUAYRA CASPI
Peru	TORNILLO

TORNILLO

REQUIREMENT OF A PRESERVATIVE TREATMENT

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

DRYING

Drying rate:	Rapid
Risk of distortion:	Slight risk
Risk of casehardening:	No
Risk of checking:	Slight risk
Risk of collapse:	No

Possible drying schedule

M.C. (%)	Temperature (°C) dry-bulb	wet-bulb	Air humidity (%)
Green	42	39	82
50	48	43	74
40	48	43	74
30	48	43	74
15	54	46	63

This shedule is given for information only and is applicable to thickness < 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:	Not recommended or without interest
Note:	Fuzzy surface. Sawdust can irritate noze and throat. Filling is recommended in order to obtain a better finish.

ASSEMBLING

Nailing / Screwing:	Poor
Gluing:	Correct
Note:	Nails holding varies according to specific gravity.

END-USES

Main known end-uses; they must to be implemented according to the code of practice.
Important remark: some end-uses are mentionned for information (traditional, regional or ancient end-uses).

Formwork
Moulding
Turned goods
Interior joinery
Veneer for interior of plywood
Blockboard
Current furniture or furniture components
Pulp
Boxes and crates
Fiber or particle boards
Exterior joinery
Exterior panelling
Interior panelling
Glued laminated
Wood frame house