

Common name:	ANDIROBA
Family:	MELIACEAE
Scientific name(s):	Carapa guianensis Carapa procera
Note:	Carapa procera may be found in Africa.

LOG DESCRIPTION	WOOD DESCRIPTION
Diameter:	from 50 to 80 cm
Thickness of sapwood:	from 3 to 5 cm
Floats:	no
Durability in forest :	Moderate (treatment recommended)
Note:	Buoyancy is variable: ANDIROBA BRANCA (varzea) floats, ANDIROBA VERMELHA (terra firme) does not float.
Colour:	Red brown
Sapwood:	Not clearly demarcated
Texture:	Medium
Grain:	Straight or interlocked
Interlocked grain:	Slight

PHYSICAL PROPERTIES	MECHANICAL 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	mean	standard deviation
Density *:	0.67 g/cm ³	0.06		
Monnin hardness*:	3.5	0.8	Crushing strength *:	59 MPa
Coef of volumetric shrinkage:	0.55 %	0.07	Static bending strength *:	102 MPa
Total tangential shrinkage:	7.7 %	1.0	Modulus of elasticity *:	14530 MPa
Total radial shrinkage:	4.8 %	0.9		1736
Fibre saturation point:	27 %			
Stability:	Moderately stable		(* : at 12 % moisture content ; 1 MPa = 1 N/mm ²)	

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 3-4 moderately to poorly durable	* ensured by natural durability (according EN standards).
Dry wood borers:	Susceptible; sapwood not or slightly demarcated (risk in all the wood)	
Termites:	Class M - Moderately durable	
Treatability:	3 - poorly permeable	
Use class*:	2 - inside or under cover (dampness possible)	
Note:	This species is listed in the European standard NF EN 350-2.	

MAIN LOCAL NAMES

Countries	Local names
Brazil	ANDIROBA
Brazil	ANDIROBA BRANCA
Brazil	ANDIROBEIRA
Brazil	CARAPA
Colombia	MASABALO
Costa-Rica	CEDRO BATEO
Costa-Rica	CEDRO MACHO
Ecuador	FIGUEROA
Ecuador	TANGARE
French Guiana	CARAPA
Guyana	CRABWOOD
Honduras	BASTARD MAHOGANY
Panama	CEDRO BATEO
Paraguay	ANDIROBA
Peru	ANDIROBA
Surinam	KRAPPA
Trinidad and Tobago	CRAPPO
Venezuela	CARAPA
Venezuela	MASABALO

ANDIROBA

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

Possible drying schedule

Drying rate:	Normal to slow	Temperature (°C)			Air humidity (%)
		M.C. (%)	dry-bulb	wet-bulb	
Risk of distortion:	Slight risk				
Risk of casehardening:	No				
Risk of checking:	High risk				
Risk of collapse:	Yes	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 < 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.

Note: Low temperature and high humidity are recommended during drying.

SAWING AND MACHINING

Blunting effect:	Normal
Sawteeth recommended:	Ordinary or alloy steel
Cutting tools:	Ordinary
Peeling:	Good
Slicing:	Good
Note:	Some difficulties in planing in presence of interlocked grain.

ASSEMBLING

Nailing / Screwing:	Good but pre-boring necessary
Gluing:	Correct
Note:	Tends to split when nailing.

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).

Note: Generally used as substitute for MAHOGANY (*Swietenia* spp.).

Veneer for back or face of plywood

Current furniture or furniture components

Cabinetwork (high class furniture)

Sliced veneer

Exterior joinery

Interior joinery

Interior panelling

Flooring

Stairs (inside)

Light carpentry

Glued laminated

Exterior panelling

Seats

Ship building (planking and deck)

Turned goods

Moulding

Boxes and crates

Shingles
