

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.

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 <sup>3</sup>	0.06	Crushing strength *:	59 MPa	7
Monnin hardness*:	3.5	0.8	Static bending strength *:	102 MPa	18
Coef of volumetric shrinkage:	0.55 %	0.07	Modulus of elasticity *:	14530 MPa	1736
Total tangential shrinkage:	7.7 %	1.0			
Total radial shrinkage:	4.8 %	0.9			
Fibre saturation point:	27 %				
Stability:	Moderately stable		(* : at 12 % moisture content ; 1 MPa = 1 N/mm <sup>2</sup> )		

#### 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	
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.	

#### COUNTRIES - LOCAL NAMES

Countries	Local names	Countries	Local names
Brazil	ANDIROBA	Venezuela	MASABALO
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		

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**ANDIROBA**

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**REQUIREMENT OF A PRESERVATIVE TREATMENT**

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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

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**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

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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.

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

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**SAWING AND MACHINING**

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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.

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**ASSEMBLING**

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

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**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).

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

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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

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