Common name:	MARUPA
Family:	SIMAROUBACEAE
Scientific name(s):	Simarouba amara
	Quassia simarouba (synonymous)

LOG DESCRIPTION

Diameter:	from 50 to 90 cm
Thickness of sapwood:	from to cm
Floats:	yes
Durability in forest :	Low (must be treated)
Note:	Cream white to light yellow. Sometimes oily veins.

WOOD DESCRIPTION

Colour:	Creamy white
Sapwood:	Not demarcated
Texture:	Coarse
Grain:	Straight
Interlocked grain:	Absent

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 *:	0.41 g/cm3	0.04
Monnin hardness*:	1.1	0.5
Coef of volumetric shrinkage:	0.36 %	0.08
Total tangential shrinkage:	6.3 %	0.6
Total radial shrinkage:	2.8 %	0.5
Fibre saturation point:	32 %	
Stability:	stable	

MECHANICAL PROPERTIES

	mean	standard deviation
Crushing strength *:	34 MPa	6
Static bending strength *:	59 MPa	11
Modulus of elasticity *:	10070 MPa	1711

(* : 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 5 - not durable
Dry wood borers:	Susceptible; sapwood not or slightly demarcated (risk in all the wood)
Termites:	Class S - Susceptible
Treatability:	1 - easily permeable
Biological hazard class*:	1 - not in ground contact, under cover (no dampness)

* ensured by natural durability (according EN standards).

COUNTRIES - LOCAL NAMES

Countries	Local names
Bolivia	CHIRIUANA
Brazil (Amazon)	MARUPA
Brazil (Amazon)	MARUPAUBA
Brazil	PARAHYBA
Brazil	PARAIBA
Brazil	TAMANQUEIRA
Colombia	SIMARUBA
Ecuador	CEDRO AMARGO
Ecuador	CUNA
Ecuador	GUITARRO
French Guiana	SIMAROUBA
Guyana	SIMARUPA
Peru	MARUPA
Surinam	SOEMAROEBA
Venezuela	CEDRO BLANCO
Venezuela	SIMAROUBA
United Kingdom	BITTERWOOD

MARUPA

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:	No risk or very slight risk
Risk of casehardening:	No
Risk of checking:	No risk or very slight risk
Risk of collapse:	No

Possible drying schedule

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 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: Prone to blue stain before and during drying.

SAWING AND MACHINING

Blunting effect:	Normal
Sawteeth recommended:	Ordinary or alloy steel
Cutting tools:	Ordinary
Peeling:	Good
Slicing:	Good

ASSEMBLING

Nailing / Screwing:	Poor
Gluing:	Correct

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: Filling is recommended in order to obtain a good finish.

Veneer for interior of plywood
Veneer for back or face of plywood
Boxes and crates
Blockboard
Current furniture or furniture components
Sliced veneer
Stringed instruments (sounding board)
Moulding
Matches
Turned goods
Interior panelling
Interior joinery
Fiber or particle boards
Wood-ware