

Common name:	SANDE
Family:	MORACEAE
Scientific name(s):	Brosimum utile Brosimum parinarioides Brosimum potabile
Note:	SANDE refers to light coloured Brosimum species.

LOG DESCRIPTION	WOOD DESCRIPTION
Diameter: from 70 to 90 cm	Colour: Light brown
Thickness of sapwood: from to cm	Sapwood: Not demarcated
Floats: yes	Texture: Medium
Durability in forest : Low (must be treated)	Grain: Interlocked
	Interlocked grain: Slight
Note:	Heartwood varies from greyish white to light brown with golden shades. Sometimes internal stresses.

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 *:	0.69 g/cm ³	0.05		
Monnin hardness*:	3.5	1.0	Crushing strength *:	64 MPa
Coef of volumetric shrinkage:	0.59 %	0.03	Static bending strength *:	95 MPa
Total tangential shrinkage:	8.2 %	1.3	Modulus of elasticity *:	16380 MPa
Total radial shrinkage:	5.8 %	1.1		2170
Fibre saturation point:	28 %			
Stability:	Poorly 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 5 - not durable	* ensured by natural durability (according EN standards).
Dry wood borers:	Susceptible; sapwood not or slightly demarcated (risk in all the wood)	
Termites:	Class S - Susceptible	
Treatability:	1 - easily permeable	
Use class*:	1 - inside (no dampness)	
Note:	Prone to blue stain.	

MAIN LOCAL NAMES

Countries	Local names
Brazil (Amazon)	AMAPA
Brazil (Amazon)	AMAPA DOCE
Brazil (Amazon)	ARBOL VACA
Brazil (Amazon)	LEITEIRA
Colombia	ARBOL VACA
Colombia	GUAIMARO
Colombia	LECHERO
Colombia	SANDE
Costa-Rica	PALO DE VACA
Ecuador	SANDE
French Guiana	DOKALI
French Guiana	TAKINA
Panama	PALO DE VACA
Panama	SANDY
Peru	PANGUANA
Venezuela	MARINA
Venezuela	SANDE
Venezuela	VACA
United Kingdom	COW TREE

SANDE

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	Temperature (°C)			Air humidity (%)
		M.C. (%)	dry-bulb	wet-bulb	
Risk of distortion:	Slight risk				
Risk of casehardening:	No				
Risk of checking:	No risk or very slight risk	Green	60	56	81
Risk of collapse:	No	30	68	58	61
		20	74	60	51
		15	80	61	41

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: The risks of distortion increase in presence of highly interlocked grain; in this case, air drying is recommended.

SAWING AND MACHINING

Blunting effect:	Normal
Sawteeth recommended:	Ordinary or alloy steel
Cutting tools:	Ordinary
Peeling:	Good
Slicing:	Good
Note:	Some difficulties in presence of internal stresses (overheating of sawblades) and highly interlocked grain. Keep sharp tools.

ASSEMBLING

Nailing / Screwing:	Good
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).

Veneer for interior of plywood
Veneer for back or face of plywood
Current furniture or furniture components
Boxes and crates
Interior joinery
Moulding
Fiber or particle boards
Interior panelling
Light carpentry
Flooring
Sliced veneer
