

Common name:	BALSA
Family:	BOMBACACEAE
Scientific name(s):	Ochroma pyramidale Ochroma lagopus (synonymous)

LOG DESCRIPTION	WOOD DESCRIPTION
Diameter: from 50 to 80 cm	Colour: Creamy white
Thickness of sapwood: from to cm	Sapwood: Not demarcated
Floats: yes	Texture: Coarse
Durability in forest : Low (must be treated)	Grain: Straight
Note: Wood cream white to pink white.	Interlocked grain: Absent

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 *: 0.14 g/cm <sup>3</sup>	Crushing strength *: 11 MPa
Monnin hardness*: 0.3	Static bending strength *: 24 MPa
Coef of volumetric shrinkage: 0.21 %	Modulus of elasticity *: 5140 MPa
Total tangential shrinkage: 5.2 %	
Total radial shrinkage: 2.2 %	
Fibre saturation point: 34 %	
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 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:	Impregnation in autoclave is not recommended. Impregnation by soaking satisfactory.	

#### MAIN LOCAL NAMES

Countries	Local names
Brazil	PAU DE Balsa
Colombia	LANU
Ecuador	BALSA
Guatemala	LANILLA
Honduras	BALSA
Honduras	GUANO
Nicaragua	GATILLO
Peru	BALSA
Peru	PALO DE Balsa
Peru	TOPA
Salvador	ALGODON
Trinidad and Tobago	BOIS FLOT
Venezuela	BALSO

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## BALSA

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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:	High risk	Green	60	56	81
Risk of casehardening:	Yes	30	68	58	61
Risk of checking:	High risk	20	74	60	51
Risk of collapse:	No	15	80	61	41

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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: Kiln drying is preferable to air drying to reduce the defects. Drying must be done slowly and carefully.

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### SAWING AND MACHINING

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Blunting effect:	Normal
Sawteeth recommended:	Ordinary or alloy steel
Cutting tools:	Ordinary
Peeling:	Not recommended or without interest
Slicing:	Not recommended or without interest
Note:	Sharp tools are necessary to avoid fuzzy surface.

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### ASSEMBLING

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Nailing / Screwing:	Poor
Gluing:	Correct

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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: Filling is required to obtain a good finish.

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Insulation  
Floats  
Model building  
Wood-ware

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