

Common name:	FROMAGER
Family:	BOMBACACEAE
Scientific name(s):	Ceiba pentandra Ceiba thoningii (synonymous)

LOG DESCRIPTION	WOOD DESCRIPTION
Diameter:	from 70 to 150 cm
Thickness of sapwood:	from to cm
Floats:	yes
Durability in forest :	Low (must be treated)
Note:	Logs must be treated, extracted, sawn and dried as soon as possible after felling. Some logs are not floatable. Wood cream white to light yellow, often with greyish veins.

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 *:	0.32 g/cm ³	0.03		
Monnin hardness*:	0.8	0.2	Crushing strength *:	22 MPa
Coef of volumetric shrinkage:	0.36 %	0.07	Static bending strength *:	36 MPa
Total tangential shrinkage:	6.3 %	1.3	Modulus of elasticity *:	5130 MPa
Total radial shrinkage:	3.0 %	0.4		1462
Fibre saturation point:	34 %			
Stability:	Moderately stable to 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:	This species is listed in the European standard NF EN 350-2.	

MAIN LOCAL NAMES

Countries	Local names
Benin	ADJOLOHUTIN
Benin	HUTIN
Cameroon	DOUM
Congo	FUMA
Côte d'Ivoire	ENIA
Côte d'Ivoire	FROMAGER
Dem Rep of Congo	FUMA
Ghana	CEIBA
Ghana	ONYINA
Liberia	GHE
Nigeria	ARABA
Nigeria	OKHA
Sierra Leone	BANDA
Sierra Leone	NGWE
France	FROMAGER
Germany	CEIBA
Netherlands	KAKANTRIE
United Kingdom	CEIBA
U.S.A.	SILK COTTON-TREE

FROMAGER

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	Green	60	56	81
Risk of casehardening:	No	30	68	58	61
Risk of checking:	Slight risk	20	74	60	51
Risk of collapse:	No	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: A rather slow drying is recommended due to the important moisture content when green.

SAWING AND MACHINING

Blunting effect:	Normal
Sawteeth recommended:	Ordinary or alloy steel
Cutting tools:	Ordinary
Peeling:	Good
Slicing:	Not recommended or without interest
Note:	Fuzzy surface. Keep sharp tools to obtain a better finish.

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).

Veneer for interior of plywood

Boxes and crates

Blockboard

Moulding

Current furniture or furniture components

Insulation
