

Common name: FRAKE

Family: COMBRETACEAE

Scientific name(s): Terminalia superba

LOG DESCRIPTION

Diameter: from 60 to 100 cm
Thickness of sapwood: from to cm
Floats: yes
Durability in forest : Low (must be treated)

WOOD DESCRIPTION

Colour: Light yellow
Sapwood: Not demarcated
Texture: Medium
Grain: Straight or interlocked
Interlocked grain: Slight

Note: Sometimes brittleheart.
Some logs have a black greyish heartwood, more or less veined.

PHYSICAL PROPERTIES

Physical and mechanical properties are based on mature heartwood specimens. These properties can vary greatly depending on origin and growth conditions.

MECHANICAL PROPERTIES

	mean	standard deviation		mean	standard deviation
Density *:	0.54 g/cm ³	0.07			
Monnin hardness*:	2.4	0.9	Crushing strength *:	47 MPa	8
Coef of volumetric shrinkage:	0.42 %	0.07	Static bending strength *:	80 MPa	16
Total tangential shrinkage:	6.1 %	0.9	Modulus of elasticity *:	11750 MPa	2480
Total radial shrinkage:	4.3 %	1.1			
Fibre saturation point:	28 %				
Stability:	Moderately 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 4 - poorly durable
Dry wood borers: Susceptible; sapwood not or slightly demarcated (risk in all the wood)
Termites: Class S - Susceptible
Treatability: 2 - moderately permeable
Use class*: 1 - inside (no dampness)

* ensured by natural durability (according EN standards).

Note: This species is listed in the European standard NF EN 350-2.
Preservative treatment is sometimes difficult due to a variable permeability (low to good).

MAIN LOCAL NAMES

Countries	Local names
Benin	AZINII
Cameroon	AKOM
Central African Rep	N'GANGA
Congo	LIMBA
Côte d'Ivoire	FRAKE
Dem Rep of Congo	LIMBA
Equatorial Guinea	AKOM
Ghana	OFRAM
Nigeria	AFARA
Nigeria	WHITE AFARA
Sierra Leone	KOJAGEI
France	FRAKE
France	LIMBO
France	NOYER DU MAYOMBE
U.S.A.	KORINA

FRAKE

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:	Rapid to normal	Temperature (°C)			Air humidity (%)
		M.C. (%)	dry-bulb	wet-bulb	
Risk of distortion:	No risk or very slight risk	Green	60	56	81
Risk of casehardening:	No	30	68	58	61
Risk of checking:	No risk or very 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.

SAWING AND MACHINING

Blunting effect:	Normal
Sawteeth recommended:	Ordinary or alloy steel
Cutting tools:	Ordinary
Peeling:	Good
Slicing:	Good
Note:	Internal stresses in some logs (usually timbers from plantation). Sometimes, blunting effect quite high.

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).

Note: Sawdust may cause allergic reactions during machining.

Veneer for interior of plywood

Veneer for back or face of plywood

Blockboard

Current furniture or furniture components

Seats

Interior joinery

Interior panelling

Moulding

Light carpentry

Glued laminated

Wood frame house

Boxes and crates

Fiber or particle boards

Wood-ware

Sliced veneer
