

Common name:	LIMBALI
Family:	CAESALPINIACEAE
Scientific name(s):	Gilbertiodendron dewevrei Macrobium dewevrei (synonymous) Gilbertiodendron preussii Gilbertiodendron brachystegioides

LOG DESCRIPTION		WOOD DESCRIPTION	
Diameter:	from 60 to 100 cm	Colour:	Red brown
Thickness of sapwood:	from 5 to 10 cm	Sapwood:	Clearly demarcated
Floats:	no	Texture:	Coarse
Durability in forest :	Moderate (treatment recommended)	Grain:	Straight or interlocked
Note:	Wood red brown with greenish or copper shades. Possible 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 *:	0.81 g/cm ³	0.05	Crushing strength *:	72 MPa	5
Monnin hardness*:	5.1	1.1	Static bending strength *:	137 MPa	13
Coef of volumetric shrinkage:	0.62 %	0.05	Modulus of elasticity *:	18010 MPa	2889
Total tangential shrinkage:	9.1 %	0.8			
Total radial shrinkage:	4.7 %	0.5			
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 2 - durable	* ensured by natural durability (according EN standards).
Dry wood borers:	Durable; sapwood demarcated (risk limited to sapwood)	
Termites:	Class M - Moderately durable	
Treatability:	3 - poorly permeable	
Use class*:	3 - not in ground contact, outside	
Note:	Good resistance to white rot. Moderate resistance to brown cubical rot. According to the European standard NF EN 335, performance length might be modified by the intensity of end-use exposition.	

MAIN LOCAL NAMES

Countries	Local names
Cameroon	EKOBEM
Central African Rep	MOLAPA
Côte d'Ivoire	VAA
Dem Rep of Congo	DITSHIPI
Dem Rep of Congo	LIGUDU
Dem Rep of Congo	LIMBALI
Gabon	ABEUM
Ghana	TETEKON
Liberia	SEHMEH
Nigeria	EKPAGOI EZE

LIMBALI

REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks:	Does not require any preservative treatment
In case of temporary humidification risk:	Does not require any preservative treatment
In case of permanent humidification risk:	Use not recommended

DRYING

Possible drying schedule

Drying rate:	Slow	Temperature (°C)			Air humidity (%)
		M.C. (%)	dry-bulb	wet-bulb	
Risk of distortion:	High risk	Green	50	47	84
Risk of casehardening:	No	40	50	45	75
Risk of checking:	High risk	30	55	47	67
Risk of collapse:	No	20	70	55	47
		15	75	58	44

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: Drying must be handled with care to reduce risks of cracks. Air drying under cover recommended.

SAWING AND MACHINING

Blunting effect:	Fairly high
Sawteeth recommended:	Stellite-tipped
Cutting tools:	Tungsten carbide
Peeling:	Bad
Slicing:	Not recommended or without interest
Note:	Requires power. Log turning sawing recommended as soon as possible after felling (risks of splitting).

ASSEMBLING

Nailing / Screwing:	Good but pre-boring necessary
Gluing:	Correct (for interior only)

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).

Heavy carpentry
Industrial or heavy flooring
Exterior joinery
Interior joinery
Exterior panelling
Interior panelling
Ship building (planking and deck)
Vehicle or container flooring
Stairs (inside)
Wood frame house
