

Common name:	WENGE
Family:	FABACEAE
Scientific name(s):	Millettia laurentii Millettia stuhlmannii

LOG DESCRIPTION	WOOD DESCRIPTION
Diameter:	from 60 to 100 cm
Thickness of sapwood:	from 2 to 3 cm
Floats:	no
Durability in forest :	Good
Note:	Sometimes, brittleheart and giub hole. Wood yellow when fresh, becoming dark brown to black brown with light. Presence of alternate light and dark stripes.

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 *:	0.87 g/cm ³	0.08		
Monnin hardness*:	9.1	1.8	Crushing strength *:	85 MPa 15
Coef of volumetric shrinkage:	0.69 %	0.04	Static bending strength *:	144 MPa 43
Total tangential shrinkage:	9.1 %		Modulus of elasticity *:	21050 MPa 695
Total radial shrinkage:	5.9 %			
Fibre saturation point:	22 %			
Stability:	Moderately stable		(* : at 12 % moisture content ; 1 MPa = 1 N/mm ²)	
Note:	Hardness varies from hard to very hard.			

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
Dry wood borers:	Durable; sapwood demarcated (risk limited to sapwood)
Termites:	Class D - Durable
Treatability:	4 - not permeable
Biological hazard class*:	4 - in ground or fresh water contact or high dampness
Note:	This species is listed in the European standard NF EN 350-2.

* ensured by natural durability (according EN standards).

COUNTRIES - LOCAL NAMES	
Countries	Local names
Cameroon	AWOUNG
Congo	WENGE
Dem Rep of Congo	WENGE
Mozambique	JAMBIRE
Tanzania	MPANDE
France	PANGA-PANGA
France	WENGE
Germany	PANGA-PANGA
Germany	WENGE
United Kingdom	PANGA-PANGA
United Kingdom	WENGE

WENGE

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:	Does not require any preservative treatment

DRYING

Possible drying schedule

Drying rate:	Slow	M.C. (%)	Temperature (°C)		Air humidity (%)
			dry-bulb	wet-bulb	
Risk of distortion:	Slight risk	Green	42	39	82
Risk of casehardening:	No	50	48	43	74
Risk of checking:	High risk	40	48	43	74
Risk of collapse:	No	30	48	43	74
		15	54	46	63

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: Usually, few risks of distortion except with thick material.

SAWING AND MACHINING

Blunting effect:	Fairly high
Sawteeth recommended:	Stellite-tipped
Cutting tools:	Tungsten carbide
Peeling:	Not recommended or without interest
Slicing:	Good
Note:	Requires power. Difficult to polish. Apply preferably a finishing wax.

ASSEMBLING

Nailing / Screwing:	Good but pre-boring necessary
Gluing:	Poor
Note:	Risks of splits in nailing. Gluing is difficult and the wood can be stained.

END-USES

Main known end-uses; they must to be implemented according to the code of practice.

Important remark: some end-uses are mentioned for information (traditional, regional or ancient end-uses).

Flooring

Cabinetwork (high class furniture)

Sliced veneer

Current furniture or furniture components

Interior joinery

Exterior joinery

Interior panelling

Exterior panelling

Sculpture

Turned goods

Resistant to one or several acids
