

Common name:	PADOUK
Family:	FABACEAE
Scientific name(s):	Pterocarpus soyauxii Pterocarpus osun

LOG DESCRIPTION	WOOD DESCRIPTION
Diameter:	from 60 to 100 cm
Thickness of sapwood:	from 6 to 10 cm
Floats:	no
Durability in forest :	Moderate (treatment recommended)
Note:	Variable buoyancy. Wood bright red becoming purplish brown with light.

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 *:	0.79 g/cm ³	0.09	Crushing strength *:	65 MPa	8
Monnin hardness*:	8.3	1.9	Static bending strength *:	116 MPa	24
Coef of volumetric shrinkage:	0.44 %	0.10	Modulus of elasticity *:	15870 MPa	1885
Total tangential shrinkage:	5.0 %	0.5			
Total radial shrinkage:	3.2 %	0.3			
Fibre saturation point:	21 %				
Stability:	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 1 - very durable	* ensured by natural durability (according EN standards).
Dry wood borers:	Durable; sapwood demarcated (risk limited to sapwood)	
Termites:	Class D - Durable	
Treatability:	2 - moderately 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. It naturally covers the biological hazard class 5 (end-uses in marine environment or in brackish water) only for end-uses under temperate and cold environment.	

COUNTRIES - LOCAL NAMES

Countries	Local names	Countries	Local names
Angola	TACULA	United Kingdom	CAMWOOD
Cameroon	MBEL	United Kingdom	PADAUK
Central African Rep	PADOUK		
Congo	KISESE		
Dem Rep of Congo	MONGOLA		
Dem Rep of Congo	MUKULA		
Dem Rep of Congo	NGULA		
Equatorial Guinea	PALO ROJO		
Gabon	MBEL		
Nigeria	OSUN		
Belgium	CORAIL		
Germany	PADAUK		
Italia	PADUK		
Netherlands	PADOEK		
United Kingdom	AFRICANPADAUK		
United Kingdom	BARWOOD		

PADOUK

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

		Temperature (°C)			Air humidity (%)
		M.C. (%)	dry-bulb	wet-bulb	
Drying rate:	Normal to slow				
Risk of distortion:	No risk or very slight risk				
Risk of casehardening:	No				
Risk of checking:	No risk or very slight risk	Green	50	47	84
Risk of collapse:	No	40	50	45	75
		30	55	47	67
		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.

SAWING AND MACHINING

Blunting effect:	Fairly high
Sawteeth recommended:	Stellite-tipped
Cutting tools:	Tungsten carbide
Peeling:	Not recommended or without interest
Slicing:	Good
Note:	Sometimes, irritant sawdust. Requires power. Sometimes, difficulties due to interlocked grain.

ASSEMBLING

Nailing / Screwing:	Good but pre-boring necessary
Gluing:	Correct
Note:	Pre-boring necessary: risks of splits especially with thin boards. Gluing requires care (dense wood).

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).

Hydraulic works (seawater)
Industrial or heavy flooring
Flooring
Sliced veneer
Cabinetwork (high class furniture)
Sleepers
Bridges (parts in contact with water or ground)
Bridges (parts not in contact with water or ground)
Vehicle or container flooring
Heavy carpentry
Ship building (ribs)
Ship building (planking and deck)
Turned goods
Seats
Exterior joinery
Stairs (inside)
Interior joinery
Sculpture
