

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

LOG DESCRIPTION	WOOD DESCRIPTION		
Diameter:	from 60 to 100 cm	Colour:	Red
Thickness of sapwood:	from 6 to 10 cm	Sapwood:	Clearly demarcated
Floats:	no	Texture:	Coarse
Durability in forest :	Moderate (treatment recommended)	Grain:	Straight or interlocked
Note:	Variable buoyancy. Wood bright red becoming purplish brown with light.	Interlocked grain:	Slight

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	
Density *:	0.79 g/cm <sup>3</sup>	0.09	
Monnin hardness*:	8.3	1.9	Crushing strength *:
Coef of volumetric shrinkage:	0.44 %	0.10	65 MPa
Total tangential shrinkage:	5.0 %	0.5	Static bending strength *:
Total radial shrinkage:	3.2 %	0.3	116 MPa
Fibre saturation point:	21 %		Modulus of elasticity *:
Stability:	stable		15870 MPa
			1885
			(* : at 12 % moisture content ; 1 MPa = 1 N/mm <sup>2</sup> )

**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	
Use class*:	4 - in ground or fresh water contact	
Note:	This species is listed in the European standard NF EN 350-2. It naturally covers the use class 5 (end-uses in marine environment or in brackish water) only for end-uses under temperate and cold environment. 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
Angola	TACULA
Cameroon	MBEL
Central African Rep	PADOUK
Congo	KISESE
Dem Rep of Congo	MONGOLA
Dem Rep of Congo	MUKULA
Dem Rep of Congo	N'GULA
Equatorial Guinea	PALO ROJO
Gabon	MBEL
Nigeria	OSUN
Belgium	CORAIL
Germany	PADAUK
Italia	PADUK
Netherlands	PADOEK
United Kingdom	AFRICANPADAUK
United Kingdom	BARWOOD
United Kingdom	CAMWOOD

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

**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 mentionned 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