

Common name:	BINTANGOR
Family:	CLUSIACEAE
Scientific name(s):	Calophyllum inophyllum Calophyllum papuanum Calophyllum parviflorum Calophyllum vitiense Calophyllum spp.* (note)
Note:	Calophyllum spp.*: origins from Asia-Oceania.

LOG DESCRIPTION		WOOD DESCRIPTION	
Diameter:	from 50 to 100 cm	Colour:	Dark red
Thickness of sapwood:	from 5 to 10 cm	Sapwood:	Clearly demarcated
Floats:	yes	Texture:	Medium
Durability in forest :	Moderate (treatment recommended)	Grain:	Interlocked
Note:	Wood dark red to brown red or pinkish brown, with darker veins.	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		mean	standard deviation
Density *:	0.74 g/cm <sup>3</sup>	0.11	Crushing strength *:	66 MPa	13
Monnin hardness*:	5.7	1.5	Static bending strength *:	105 MPa	23
Coef of volumetric shrinkage:	0.52 %	0.08	Modulus of elasticity *:	14800 MPa	3224
Total tangential shrinkage:	7.7 %	1.4			
Total radial shrinkage:	5.8 %	1.1			
Fibre saturation point:	31 %				
Stability:	stable		(* : 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 3 moderately durable	* ensured by natural durability (according EN standards).
Dry wood borers:	Durable; sapwood demarcated (risk limited to sapwood)	
Termites:	Class M - Moderately durable	
Treatability:	4 - not permeable	
Use class*:	2 - inside or under cover (dampness possible)	
Note:	This species is listed in the European standard NF EN 350-2.	

#### MAIN LOCAL NAMES

Countries	Local names
Indonesia	BINTANGUR
Magagascar	VINTANINA
Malaysia (islands)	PENAGA
Peninsular Malaysia	BINTANGOR
Myanmar	SULTAN CHAMPA
Myanmar	THARAPI
New Caledonia	TAMANOU
Papua New Guinea	CALOPHYLLUM
Philippines	BANSANGHAL
Philippines	VUTALAU
Solomon Islands	KOILA
Sri-Lanka	DOMBA-GASS
Thailand	KATHING
Thailand	POON
Thailand	TANGHON
Vanuatu	TAMANOU
Vietnam	CONG
Vietnam	MU-U

REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks:	Does not require any 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

		Temperature (°C)			Air humidity (%)
		M.C. (%)	dry-bulb	wet-bulb	
Drying rate:	Normal to slow				
Risk of distortion:	High risk				
Risk of casehardening:	No				
Risk of checking:	Slight risk	Green	42	41	94
Risk of collapse:	Yes	50	48	43	74
		30	54	46	63
		20	60	51	62
		15	60	51	62

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: Risks of end checks. It is recommended to stack the piles in the alignment of spacer sticks in order to avoid warping.

SAWING AND MACHINING

Blunting effect:	Normal
Sawteeth recommended:	Ordinary or alloy steel
Cutting tools:	Ordinary
Peeling:	Good
Slicing:	Good
Note:	Risks of internal stresses. Tendency to woolliness. Filing is recommended to obtain a good finish.

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).

Note: Can be used for high class furniture if the grain is not highly interlocked.

- Current furniture or furniture components
- Interior joinery
- Interior panelling
- Sliced veneer
- Wood frame house
- Ship building (ribs)
- Ship building (planking and deck)
- Exterior joinery
- Flooring
- Stairs (inside)
- Veneer for back or face of plywood
- Boxes and crates
- Formwork
- Cabinetwork (high class furniture)
- Heavy carpentry