

Common name:	NYATOH
Family:	SAPOTACEAE
Scientific name(s):	Palaquium spp.
Note:	NYATOH is the name given to the light and medium SAPOTACEAE woods (Payena, Ganua and especially Palaquium); the name BITIS is given to heavy woods .

LOG DESCRIPTION		WOOD DESCRIPTION	
Diameter:	from 50 to 100 cm	Colour:	Red brown
Thickness of sapwood:	from 4 to 9 cm	Sapwood:	Clearly demarcated
Floats:	no	Texture:	Medium
Durability in forest :	Moderate (treatment recommended)	Grain:	Straight or interlocked
		Interlocked grain:	Slight
Note:	Wood dark pink to red brown. Grain sometimes wavy.		

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 *:	0.57 g/cm <sup>3</sup>	0.06			
Monnin hardness*:	2.6	0.6	Crushing strength *:	53 MPa	7
Coef of volumetric shrinkage:	0.48 %	0.03	Static bending strength *:	83 MPa	13
Total tangential shrinkage:	7.7 %	0.8	Modulus of elasticity *:	12770 MPa	2150
Total radial shrinkage:	4.1 %	0.5			
Fibre saturation point:	29 %				
Stability:	stable		(* : at 12 % moisture content ; 1 MPa = 1 N/mm <sup>2</sup> )		
Note:	Wood properties vary according to the different species.				

#### 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 S - Susceptible	
Treatability:	3 - poorly permeable	
Use class*:	2 - inside or under cover (dampness possible)	
Note:	Several species are grouped under the name NYATOH of the genus Palaquium and the natural durability is variable from one species to another. It is thus recommended to restrict the use without preservative treatment for end-uses under use class 2.	

#### MAIN LOCAL NAMES

Countries	Local names
India	PALI
Indonesia	NYATOH
Malaysia (islands)	RIAM
Peninsular Malaysia	MAYANG
Peninsular Malaysia	NYATOH
Peninsular Malaysia	TABAN
Papua New Guinea	PENCIL CEDAR
Philippines	NATO
Thailand	KHA-NUNNOK
Vietnam	CHAY
Italia	NYATOH
Netherlands	BALAM
United Kingdom	NYATOH
United Kingdom	PADANG

**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

Drying rate:	Normal to slow	Temperature (°C)			Air humidity (%)
		M.C. (%)	dry-bulb	wet-bulb	
Risk of distortion:	High risk				
Risk of casehardening:	No				
Risk of checking:	High 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:	High
Sawteeth recommended:	Stellite-tipped
Cutting tools:	Tungsten carbide
Peeling:	Good
Slicing:	Good
Note:	Very variable silica content according to species. Sawdust may cause irritations.

**ASSEMBLING**

Nailing / Screwing:	Good but pre-boring necessary
Gluing:	Correct

**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).

- Current furniture or furniture components
- Cabinetwork (high class furniture)
- Interior joinery
- Exterior joinery
- Interior panelling
- Sliced veneer
- Veneer for back or face of plywood
- Light carpentry
- Flooring
- Turned goods
- Moulding