

Common name:	RAMIN
Family:	GONYSTYLACEAE
Scientific name(s):	Gonystylus spp.
Note:	The Gonystylus bancanus species is the most commonly marketed. All RAMIN species are listed in CITES (Convention on International Trade in Endangered Species of wild fauna and flora), appendix 2 and in the European Union Regulation, appendix B. Parts of wood and wood-made products which are regulated are defined by a note: all parts and products. To trade these parts and products, the exporting or re-exporting country must emit a CITES permit or certificate and an importation permit is compulsory to import within the EU.

LOG DESCRIPTION		WOOD DESCRIPTION	
Diameter:	from 50 to 70 cm	Colour:	Light yellow
Thickness of sapwood:	from to cm	Sapwood:	Not demarcated
Floats:	yes	Texture:	Fine
Durability in forest :	Low (must be treated)	Grain:	Straight or interlocked
		Interlocked grain:	Slight
Note:	Heart shakes in some logs. Wood cream white to light yellow. Unpleasant odour when green. Presence of tension wood.		

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 *:	0.66 g/cm ³	0.04			
Monnin hardness*:	3.2	0.2	Crushing strength *:	67 MPa	6
Coef of volumetric shrinkage:	0.60 %	0.06	Static bending strength *:	112 MPa	6
Total tangential shrinkage:	9.1 %	0.8	Modulus of elasticity *:	19020 MPa	2200
Total radial shrinkage:	4.9 %	0.6			
Fibre saturation point:	28 %				
Stability:	Moderately stable to poorly 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 5 - not durable	* ensured by natural durability (according EN standards).
Dry wood borers:	Susceptible; sapwood not or slightly demarcated (risk in all the wood)	
Termites:	Class S - Susceptible	
Treatability:	1 - easily permeable	
Use class*:	1 - inside (no dampness)	
Note:	This species is listed in the European standard NF EN 350-2. Very prone to blue stain.	

MAIN LOCAL NAMES

Countries	Local names	Countries	Local names
Fiji	MAVOTA	Germany	RAMIN
Indonesia	AKENIA	Italia	RAMIN
Indonesia	GARU BUAJA		
Indonesia	MEDANG KERAM		
Indonesia	RAMIN		
Malaysia (islands)	AHMIN		
Malaysia (islands)	RAMIN		
Malaysia (islands)	RAMIN TELUR		
Peninsular Malaysia	MELAWIS		
Peninsular Malaysia	RAMIN BATU		
Philippines	LANUTAN BAGIO		
Solomon Islands	AINUNURA		
Solomon Islands	LATAREKO		
Solomon Islands	FUNGUNIGALO		
Solomon Islands	PETATA		
France	RAMIN		

RAMIN

REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks:	Requires appropriate 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:	Slight risk	Green	60	56	81
Risk of casehardening:	No	30	68	58	61
Risk of checking:	High risk	20	74	60	51
Risk of collapse:	No	15	80	61	41

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 checks, end checks and blue stain with thick material.

SAWING AND MACHINING

Blunting effect:	Normal
Sawteeth recommended:	Ordinary or alloy steel
Cutting tools:	Ordinary
Peeling:	Good
Slicing:	Good
Note:	Risks of splinters in cross cutting.

ASSEMBLING

Nailing / Screwing:	Good but pre-boring necessary
Gluing:	Correct
Note:	Tends to split when nailing.

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).

Moulding

Cabinetwork (high class furniture)

Current furniture or furniture components

Veneer for interior of plywood

Veneer for back or face of plywood

Sliced veneer

Flooring

Interior joinery

Exterior panelling

Turned goods

Rolling shutters
