

Common name:	MENGGKULANG
Family:	STERCULIACEAE
Scientific name(s):	Tarrietia javanica Heritiera javanica (synonymous) Tarrietia simplicifolia Heritiera simplicifolia (synonymous)
Note:	Genera Tarrietia and Heritiera are synonymous.

LOG DESCRIPTION		WOOD DESCRIPTION	
Diameter:	from 60 to 100 cm	Colour:	Brown
Thickness of sapwood:	from 2 to 5 cm	Sapwood:	Clearly demarcated
Floats:	yes	Texture:	Coarse
Durability in forest :	Moderate (treatment recommended)	Grain:	Straight or interlocked
		Interlocked grain:	Slight
Note:	Some logs are not floatable. The colour varies from light pink to red, darkening to red brown with light. Silver figure clearly visible.		

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 *:	0.68 g/cm <sup>3</sup>	0.03			
Monnin hardness*:	4.0	0.8	Crushing strength *:	59 MPa	4
Coef of volumetric shrinkage:	0.43 %	0.14	Static bending strength *:	101 MPa	16
Total tangential shrinkage:	8.7 %	0.9	Modulus of elasticity *:	14450 MPa	2450
Total radial shrinkage:	4.5 %	0.7			
Fibre saturation point:	35 %				
Stability:	Moderately 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 4 - poorly 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:	This species is listed in the European standard NF EN 350-2. Resistance to decay low to moderate.	

#### MAIN LOCAL NAMES

Countries	Local names
Cambodia	DON CHEM
Indonesia	PALAPI
Indonesia	TERALING
Laos	MAI HAO
Laos	MAI PO HAO
Malaysia (islands)	KEMBANG
Malaysia (islands)	MENGGKULANG
Peninsular Malaysia	MENGGKULANG
Myanmar	KANZO
Philippines	LUMBAYAU
Thailand	CHUMPRAK
Vietnam	HUYNH

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## MENGGULANG

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### REQUIREMENT OF A PRESERVATIVE TREATMENT

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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

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### DRYING

#### Possible drying schedule

Drying rate:	Rapid to normal	Temperature (°C)			Air humidity (%)
		M.C. (%)	dry-bulb	wet-bulb	
Risk of distortion:	Slight risk	Green	42	39	82
Risk of casehardening:	No	50	48	43	74
Risk of checking:	High risk	40	48	43	74
Risk of collapse:	No	30	48	43	74
		15	54	46	63

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: Drying requires care in order to minimize defects.

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### SAWING AND MACHINING

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Blunting effect:	Fairly high
Sawteeth recommended:	Stellite-tipped
Cutting tools:	Tungsten carbide
Peeling:	Good
Slicing:	Good
Note:	Blunting effect normal to high due to silica content. Tendency to tear on quartersawn.

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### ASSEMBLING

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

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### 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).

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Note: Finishing quite good with filling.

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Veneer for interior of plywood

Veneer for back or face of plywood

Sliced veneer

Flooring

Current furniture or furniture components

Interior panelling

Interior joinery

Blockboard

Exterior joinery

Exterior panelling

Light carpentry

Glued laminated

Formwork

Boxes and crates

Cabinetwork (high class furniture)

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