

Common name:	KEMPAS
Family:	CAESALPINIACEAE
Scientific name(s):	Koompassia malaccensis

LOG DESCRIPTION		WOOD DESCRIPTION	
Diameter:	from 60 to 210 cm	Colour:	Red brown
Thickness of sapwood:	from to 5 cm	Sapwood:	Clearly demarcated
Floats:	no	Texture:	Coarse
Durability in forest :	Moderate (treatment recommended)	Grain:	Straight or interlocked
		Interlocked grain:	Marked
Note:	Pink when freshly sawn, weathering to orange-red or yellow-brown. Frequent concentric layers of phloem.		

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
Density *:	0.88 g/cm ³	0.05	
Monnin hardness*:			Crushing strength *:
Coef of volumetric shrinkage:	%		66 MPa
Total tangential shrinkage:	6.6 %		Static bending strength *:
Total radial shrinkage:	4.8 %		113 MPa
Fibre saturation point:	27 %		Modulus of elasticity *:
Stability:	stable		23000 MPa
Note:	Medium hardness.		(* : 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 2 - durable	* ensured by natural durability (according EN standards).
Dry wood borers:	Susceptible	
Termites:	Class S - Susceptible	
Treatability:	3 - poorly permeable	
Biological hazard class*:	3 - not in ground contact, outside exposed	
Note:	This species is listed in the European standard NF EN 350-2. According to this standard, KEMPAS treatability is considered as low. However, according some literature references, it would be easy to treat.	

COUNTRIES - LOCAL NAMES

Countries	Local names
Indonesia	MENGGERIS
Indonesia	TOEMALING
Malaysia (islands)	IMPAS
Malaysia (islands)	KEMPAS
Malaysia (islands)	MENGRIS
Papua New Guinea	KEMPAS
Thailand	YUAN

KEMPAS

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

		Temperature (°C)			Air humidity (%)
		M.C. (%)	dry-bulb	wet-bulb	
Drying rate:	Slow				
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.

Note: Frequent concentric layers of phloem induces drying heterogeneousness and may cause wood damages.

SAWING AND MACHINING

Blunting effect:	Fairly high
Sawteeth recommended:	Stellite-tipped
Cutting tools:	Tungsten carbide
Peeling:	Not recommended or without interest
Slicing:	Good
Note:	As for drying, concentric layers of phloem may lead to sawing damages.

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 mentioned for information (traditional, regional or ancient end-uses).

Industrial or heavy flooring
Flooring
Sleepers
Heavy carpentry
Vehicle or container flooring
Exterior joinery
Turned goods
Sliced veneer
Cooperage
