

Common name:	KERUING
Family:	DIPTEROCARPACEAE
Scientific name(s):	Dipterocarpus spp.

LOG DESCRIPTION	WOOD DESCRIPTION		
Diameter:	from 70 to 120 cm	Colour:	Red brown
Thickness of sapwood:	from 5 to 7 cm	Sapwood:	Clearly demarcated
Floats:	no	Texture:	Coarse
Durability in forest :	Moderate (treatment recommended)	Grain:	Straight or interlocked
Note:	Possible wind shakes.	Interlocked grain:	Slight
	Heartwood light red to red brown or purplish red brown. Presence of resin.		

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 *:	0.79 g/cm <sup>3</sup>	0.07	Crushing strength *:	65 MPa	7
Monnin hardness*:	4.6	0.7	Static bending strength *:	115 MPa	14
Coef of volumetric shrinkage:	0.54 %	0.08	Modulus of elasticity *:	16610 MPa	1313
Total tangential shrinkage:	10.0 %	1.2			
Total radial shrinkage:	5.4 %	0.8			
Fibre saturation point:	34 %				
Stability:	Moderately stable to poorly 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 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. Several species are grouped under the name KERUING of the genus Dipterocarpus 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
Andaman (islands)	GURJUN
Cambodia	DAU
India	GURJUN
Indonesia	KEROEING
Indonesia	KERUING
Laos	MAI NHANG
Laos	MAI SAT
Peninsular Malaysia	KERUING BAJAK
Peninsular Malaysia	KERUING BERAS
Myanmar	KANYIN
Myanmar	YANG
Philippines	APITONG
Sri-Lanka	HORA
Thailand	YANG
Vietnam	DAU
France	KERUING
Germany	YANG
United Kingdom	YANG

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## KERUING

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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:	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				
Risk of collapse:	No	30	42	41	94
		25	42	39	82
		20	48	43	74
		15	48	43	74

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: Moisture content very variable especially for the most resinous species. Careful stacking and end coating are recommended.

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### SAWING AND MACHINING

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Blunting effect:	High
Sawteeth recommended:	Stellite-tipped
Cutting tools:	Tungsten carbide
Peeling:	Good
Slicing:	Not recommended or without interest
Note:	Variable silica content. Some species are very resinous and tend to clog tools. Occasional tearing on quartersawn.

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### ASSEMBLING

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Nailing / Screwing:	Good but pre-boring necessary
Gluing:	Correct
Note:	Gluing must be done with care due to the presence of resin.

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

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Note: Plywood for light woods. Resin and shakes may restrict end-uses. In Asia, this species is used for sleepers and poles with a treatment.

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Flooring  
Stairs (inside)  
Vehicle or container flooring  
Heavy carpentry  
Wood frame house  
Exterior joinery  
Interior joinery  
Interior panelling  
Exterior panelling  
Bridges (parts not in contact with water or ground)  
Ship building (planking and deck)  
Veneer for interior of plywood  
Veneer for back or face of plywood  
Boxes and crates

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