

Family: DIPTEROCARPACEAE (angiosperm)

Scientific name(s): Shorea assamica* (voir note)

Shorea hypochra* (voir note)

Shorea spp.* (voir note)

Commercial restriction: no commercial restriction

Note: * Shorea sub-genus Anthoshorea.

WOOD DESCRIPTION

Color: creamy white
Sapwood: not demarcated
Texture: medium
Grain: straight or interlocked
Interlocked grain: slight

Note: Logs are almost floatable. Sometimes brittleheart.

Wood cream white becoming yellow brown with age. Ribbon like aspect on quartersawn. Grain sometimes highly interlocked.

LOG DESCRIPTION

Diameter: from 90 to 150 cm
Thickness of sapwood:
Floats: no
Log durability: moderate (treatment recommended)

PHYSICAL PROPERTIES

Physical and mechanical properties are based on mature heartwood specimens. These properties can vary greatly depending on origin and growth conditions.

	<u>Mean</u>	<u>Std dev.</u>
Specific gravity *:	0,72	
Monnin hardness *:	3,3	
Coeff. of volumetric shrinkage:	0,58 %	
Total tangential shrinkage (TS):	8,5 %	
Total radial shrinkage (RS):	4,0 %	
TS/RS ratio:	2,1	
Fiber saturation point:	33 %	
Stability: stable		

MECHANICAL AND ACOUSTIC PROPERTIES

	<u>Mean</u>	<u>Std dev.</u>
Crushing strength *:	65 MPa	
Static bending strength *:	91 MPa	
Modulus of elasticity *:	13890 MPa	

(*: at 12% moisture content, with 1 MPa = 1 N/mm²)

Musical quality factor: 140,7 measured at 2804 Hz

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.

E.N. = Euro Norm

Funghi (according to E.N. standards): class 5 - not durable

Dry wood borers: susceptible - sapwood not or slightly demarcated (risk in all the wood)

Termites (according to E.N. standards): class S - susceptible

Treatability (according to E.N. standards): class 3 - poorly permeable

Use class ensured by natural durability: class 1 - inside (no dampness)

Species covering the use class 5: No

Note: This species is listed in the European standard NF EN 350-2.

Presence of black holes. Variable treatability.

REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks: requires appropriate preservative treatment

In case of risk of temporary humidification: use not recommended

In case of risk of permanent humidification: use not recommended

DRYING

Drying rate: rapid to normal

Possible drying schedule: 4

Risk of distortion: slight risk

Risk of casehardening: no

Risk of checking: no risk or very slight risk

Risk of collapse: no

M.C. (%)	Temperature (°C)		Air humidity (%)
	dry-bulb	wet-bulb	
Green	42	39	82
50	48	43	74
40	48	43	74
30	48	43	74
15	54	46	63

This schedule is given for information only and is applicable to thickness lower or equal to 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: High silica content. Tendency to woolliness. Filing recommended to obtain a good finish.

ASSEMBLING

Nailing / screwing: good but pre-boring necessary

Gluing: correct

Note: Sometimes risks of splits when nailing.

COMMERCIAL GRADING

Appearance grading for sawn timbers: According to MGR grading rules (2009)

Possible grading: Prime, Select, Standard, Serviceable, Utility

FIRE SAFETY

Conventional French grading: Thickness > 14 mm : M.3 (moderately inflammable)

Thickness < 14 mm : M.4 (easily inflammable)

Euroclasses grading: D s2 d0

Default grading for solid wood, according to requirements of European standard EN 14081-1 annex C (April 2009). It concerns structural graded timber in vertical uses with mean density upper 0.35 and thickness upper 22 mm.

END-USES

Interior joinery

Flooring

Veneer for interior of plywood

Sliced veneer

Vehicle or container flooring

Glued laminated

Interior panelling

Stairs (inside)

Veneer for back or face of plywood

Current furniture or furniture components

Light carpentry

MAIN LOCAL NAMES

<u>Country</u>	<u>Local name</u>	<u>Country</u>	<u>Local name</u>
Cambodia	KOKI PHNOM	Indonesia	DAMAR PUTHI
Indonesia	MERANTI PUTIH	Peninsular Malaysia	MELAPI
Peninsular Malaysia	WHITE MERANTI	Malaysia (islands)	MERANTI JERIT
Malaysia (islands)	MERANTI LAPIS	Malaysia (islands)	MERANTI TEMAK
Malaysia (islands)	WHITE MERANTI	Myanmar	MAKAI
Thailand	KABAK KHAO	Thailand	KANAWANG
Thailand	PA NONG	Thailand	PENDAN
Thailand	PHA-YOM	Thailand	SUAL
Vietnam	CHAI		

