MERANTI DARK RED

Family: DIPTEROCARPACEAE (angiosperm)

Scientific name(s): Shorea pauciflora* (voir note)
Shorea curtusii* (voir note)
Shorea spp.* (voir note)

Commercial restriction: no commercial restriction

Note: * Shorea sub-genus Rubroshorea with a specific gravity between 0,56 and 0,78.

WOOD DESCRIPTION

Color: dark red
Sapwood: clearly demarcated
Texture: medium
Grain: interlocked
Interlocked grain: marked

Note: Wood pink brown to dark red or purplish brown, with white resin streaks (especially NEMESU).

LOG DESCRIPTION

Diameter: from 60 to 120 cm
Thickness of sapwood: from 4 to 8 cm
Floats: no
Log durability: moderate (treatment recommended)

PHYSICAL PROPERTIES

MECHANICAL AND ACOUSTIC PROPERTIES

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

	Mean	Std dev.
Specific gravity *:	0,68	
Monnin hardness *:	2,5	
Coeff. of volumetric shrinkage:	0,49 %	
Total tangential shrinkage (TS):	7,6 %	
Total radial shrinkage (RS):	4,0 %	
TS/RS ratio:	1,9	
Fiber saturation point:	26 %	

	Mean	Std dev.
Crushing strength *:	52 MPa	
Static bending strength *:	92 MPa	
Modulus of elasticity *:	13020 MPa	

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

Musical quality factor: 123,6 measured at 2739 Hz

Stability: stable

Note: Specific gravity varies from 0,58 to 0,78. Hardness varies from soft to fairly hard.

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 2 to class 4 - durable to poorly durable
Dry wood borers: durable - sapwood demarcated (risk limited to sapwood)
Termites (according to E.N. standards): class M - moderately durable
Treatability (according to E.N. standards): class 4 - not permeable
Use class ensured by natural durability: class 2 - inside or under cover (dampness possible)
Species covering the use class 5: No

Note: Variable durability (due to a variable specific gravity) according to species. Variable treatability.

REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks: does not require any preservative treatment
In case of risk of temporary humidification: requires appropriate preservative treatment
In case of risk of permanent humidification: use not recommended

DRYING

Drying rate: normal
Risk of distortion: slight risk
Risk of casehardening: no
Risk of checking: slight risk
Risk of collapse: no
Note: Thin sawnwoods must be stacked carefully with the appropriate number of spacer sticks in order to prevent risks of distortion.

Possible drying schedule: 2

M.C. (%)	Temperature (°C) dry-bulb	wet-bulb	Air humidity (%)
Green	50	47	84
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 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: fairly high
Sawteeth recommended: stellite-tipped
Cutting tools: tungsten carbide
Peeling: good
Slicing: nood
Note: Some risks of tearing in presence of interlocked grain. Ribbon like aspect. Wood may be siliceous.

ASSEMBLING

Nailing / screwing: good
Gluing: correct

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

Exterior joinery
Interior panelling
Veneer for interior of plywood
Current furniture or furniture components
Light carpentry
Vehicle or container flooring
Turned goods
Sculpture
Cabinetwork (high class furniture)
Interior joinery
Exterior panelling
Veneer for back or face of plywood
Flooring
Glued laminated
Open boats
Wood-ware
Sliced veneer

Note: Frequent black holes and brittleheart. The presence of white resin canals may be prejudicial to the aspect of the wood for some end-uses.

MAIN LOCAL NAMES

Country	Local name	Country	Local name
Indonesia	MERAH-TUA	Indonesia	MERANTI BUNGA
Indonesia	MERANTI KETUNG	Indonesia	RED MERANTI
Peninsular Malaysia	BINATOH	Peninsular Malaysia	DARK RED MERANTI
Peninsular Malaysia	DARK RED SERAYA	Peninsular Malaysia	ENGBANG CHENAK
Peninsular Malaysia	MERANTI BUNGA SENGAWAN	Peninsular Malaysia	OBA SULUK
Peninsular Malaysia	SERAYA BUKIT	Peninsular Malaysia	SERAYA DAUN
Malaysia (islands)	DARK RED MERANTI	Malaysia (islands)	MERANTI BUKIT
Malaysia (islands)	MERANTI DAUN BASAR	Malaysia (islands)	NEMESU

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