MERANTI- DARK RED SERAYA

Family: DIPTEROCARPACEAE (angiosperm)
Scientific name(s): *Shorea pauciflora (see note)*
Shorea curusil (see note)
Shorea spp. (see note)
Afrormosia elata (synonymous)
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 is pink brown to dark red or purplish brown, with white resin streaks (especially Nemesu)

LOG DESCRIPTION

Diameter: 23.6 – 47 inches
Thickness of Sapwood: 1.6 – 3.15 inches
Floats: no
Log Durability: moderate (treatment recommended)

PHYSICAL PROPERTIES

MECHANICAL/ACOUSTIC

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

	Mean
Specific Gravity*:	0.68
Janka Hardness (lbs):	800
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%
Stability:	stable

	Mean
Crushing Strength*:	7,541 lbf
Static Bending Strength*:	13,343 lbf
Modulus of Elasticity*:	1,888,391 lbf

Musical Quality Factor: 123.6 measured at 2739 Hz

**At 12% moisture content.*

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

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DRYING

Drying Rate: normal
Risk of Distortion: slight risk
Risk of Casehardening: no
Risk of Checking: slight risk
Risk of Collapse: no
Note: Thin sawn woods must be stacked carefully with the appropriate number of spacer sticks in order to prevent risks of distortion.

Possible Drying Schedule: 2

Temperature (ºF)			
M.C. (%)	**Dry-Bulb**	**Wet-Bulb**	**Air Humidity (%)**
Green	122	116.6	84
50	122	113	75
40	131	116.6	67
30	158	131	47
15	167	136.4	44

This schedule is given for information only and is applicable to thickness lower or equal to 1.5 in. It must be used in compliance with the code of practice. For thickness from 1.5 to 3 in, the air relative humidity should be increased by 5% at each step. For thickness over 3 in, a 10% increase should be considered.

SAWING AND MACHINING

Blunting Effect: fairly high
Sawteeth Recommended: stellite-tipped
Cutting Tools: tungsten carbide
Peeling: good
Slicing: good
Note:
Some risks of tearing in presence of interlocked grain. Ribbon-like aspect. Wood may be siliceous.

ASSEMBLING

Nailing / screwing: good
Gluing: correct
Note:
Gluing must be done carefully: wood may be easily stained.

END-USES

Sliced Veneer
Furniture or Furniture Components
Interior and Exterior Paneling
Flooring
Turned Goods
Cabinetwork (High Class Furniture)
Interior Joinery
Exterior Joinery
Glued laminate
Wood-ware
Open boatsVeneer for back or face of plywoodVehicle or container flooring
Note:
Frequent black holes brittle heart. 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
Indonesia	Merah-Tua, Meranti Ketung Meranti Buna, Red Meranti
Peninsular Malaysia	Binatoh, Seraya Bukit,Oba Suluk Engbang Chenak, Seraya Daun
Malaysia (islands)	Meranti Daun Basar, Mernati Bukit Nemesu

Works Cited:

CIRAD'S *Biomass, Wood, Energy, Bioproducts Research Unit (BioWooEB)*
Meier, E. (2015), Wood, United States of America