

JELUTONG



Family: APOCYNACEAE (angiosperm)
Scientific name(s): *Dyera costulata*
Dyera polyphylla
Dyera lowii (synonymous)
Commercial restriction: no commercial restriction

WOOD DESCRIPTION

Color: light yellow
Sapwood: not demarcated
Texture: fine
Grain: straight
Interlocked Grain: absent

Note: Brittleheart

Wood is creamy white to light yellow. Frequent presence of large latex canals.

LOG DESCRIPTION

Diameter: 31.5 – 47 inches
Thickness of Sapwood:
Floats: yes
Log Durability: low (must be treated)

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>
Specific Gravity*:	0.45
Janka Hardness (lbs):	390
Volumetric Shrinkage:	0.35%
Total Tangential Shrinkage (TS):	5.5%
Total Radial Shrinkage (RS):	2.3%
TS/RS Ratio:	2.4
Fiber Saturation Point:	
Stability:	stable

MECHANICAL/ACOUSTIC

	<u>Mean</u>
Crushing Strength*:	3,916 lbf
Static Bending Strength*:	1,956,269 lbf
Modulus of Elasticity*:	1,456,179 lbf

Musical Quality Factor: 127.8 measured at 259 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 5 – not durable
Dry Wood Borers:	susceptible - sapwood not or slightly demarcated (risk in all the wood)
Termites (According to E.N. standards):	class 5 – susceptible
Treatability (according to E.N. standards):	class 1 - easily permeable
Use class ensured by natural durability:	class 1 – inside (no dampness)
Species covering the use class 5:	no

REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks: requires appropriate 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: rapid
Risk of Distortion: no risk or very slight risk
Risk of Casehardening: no
Risk of Checking: slight risk
Risk of Collapse: no
Note: Risks of surface checks due to latex canals. Risks of blue stain. Pocket moisture in thick material.

Possible Drying Schedule: 4

M.C. (%)	Temperature (°F)		Air Humidity (%)
	Dry-Bulb	Wet-Bulb	
Green	122	116.6	84
40	122	113	75
30	131	116.6	67
20	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: normal
Sawteeth Recommended: ordinary or alloy steel
Cutting Tools: ordinary
Peeling: good
Slicing: good

ASSEMBLING

Note:
Nailing / screwing: poor
Gluing: correct

END-USES

Sliced Veneer
Veneer for interior of plywood
Matches
Boxes and crates
Blockboard
Pencils
Furniture or Furniture Components
Interior Paneling
Flooring
Cabinetwork (High Class Furniture)
Interior Joinery

MAIN LOCAL NAMES

<u>Country</u>	<u>Local Name</u>
Indonesia	Djelutong, Melabuwai
Peninsular Malaysia	Jelutong Paya, Pantoeng, Letoeng

Note: Can be used as a substitute for OBECHE (*Triplochiton scleroxylon*) and POPLAR (*Populus* spp.)

Works Cited:

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