# MERANTI YELLOW



Family: DIPTEROCARPACEAE (angiosperm)

Scientific name(s): Shorea faguetiana* (voir note)
Shorea multiflora* (voir note)
Shorea spp.* (voir note)

Commercial restriction: no commercial restriction

Note: * Shorea sub-genus Richetia.
YELLOW MERANTI is used for woods from peninsular Malaysia,
YELLOW SERRAYA is used for woods from Sabah-Sarawak.

## WOOD DESCRIPTION

Color: light yellow
Sapwood: not clearly demarcated
Texture: medium
Grain: straight or interlocked
Interlocked grain: slight
Note: Brittleheart (large trees).
Wood light yellow or yellow brown with sometimes greenish glints. Darkens with air. Grain sometimes wavy.

## LOG DESCRIPTION

Diameter: from 60 to 110 cm
Thickness of sapwood: from 6 to 8 cm
Floats: yes
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 *: | 0,54 | |
| Monnin hardness *: | 2,4 | |
| Coeff. of volumetric shrinkage: | 0,46 % | |
| Total tangential shrinkage (TS): | 7,3 % | |
| Total radial shrinkage (RS): | 3,1 % | |
| TS/RS ratio: | 2,4 | |
| Fiber saturation point: | 25 % | |

Stability: stable

| | Mean | Std dev. |
|---|---|---|
| Crushing strength *: | 48 MPa | |
| Static bending strength *: | 98 MPa | |
| Modulus of elasticity *: | 14100 MPa | |

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

Musical quality factor: 122,8 measured at 2846 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 4 - poorly 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 3-4 - poorly or not 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.
Resistance to fungi low to moderate. Treatability low to moderate. Presence of black holes.

## 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

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## DRYING

Drying rate: normal to slow
Risk of distortion: slight risk
Risk of casehardening: no
Risk of checking: slight risk
Risk of collapse: no
Note: Must be stacked carefully to avoid risks of distortion.

Possible drying schedule: 3

| | Temperature (°C) | | |
|---|---|---|---|
| M.C. (%) | dry-bulb | wet-bulb | Air humidity (%) |
| Green | 60 | 56 | 81 |
| 30 | 68 | 58 | 61 |
| 20 | 74 | 60 | 51 |
| 15 | 80 | 61 | 41 |

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: normal
Sawteeth recommended: ordinary or alloy steel
Cutting tools: ordinary
Peeling: good
Slicing: nood
Note: Some difficulties due to interlocked grain. Planed surfaces are not lustrous.

## 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

Veneer for interior of plywood
Interior joinery
Boxes and crates
Current furniture or furniture components
Glued laminated
Sliced veneer
Veneer for back or face of plywood
Interior panelling
Formwork
Flooring
Light carpentry

Note: Filling is recommended to obtain a good finish.

## MAIN LOCAL NAMES

| Country | Local name | Country | Local name |
|---|---|---|---|
| Indonesia | MERANTI KUNING | Peninsular Malaysia | LUN GAJAH |
| Peninsular Malaysia | LUN KUNING | Peninsular Malaysia | LUN MERAT |
| Peninsular Malaysia | LUN SIPUT | Peninsular Malaysia | SELANGAN KACHA |
| Peninsular Malaysia | SELANGAN KUNING | Peninsular Malaysia | SERAYA KUNING |
| Peninsular Malaysia | YELLOW MERANTI | Peninsular Malaysia | YELLOW SERAYA |
| Malaysia (islands) | MERANTI DAMAR HITAM | Malaysia (islands) | MERANTI KELIM |
| Malaysia (islands) | MERANTI TELEPOK | Malaysia (islands) | YELLOW MERANTI |
| Thailand | KALO | | |

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