

Family: FABACEAE-CAESALPINIOIDEAE (angiosperm)

Scientific name(s): Sindoropsis letestui

Copaifera letestui (synonymous)

Commercial restriction: no commercial restriction

WOOD DESCRIPTION

Color: pinkish brown
Sapwood: clearly demarcated
Texture: medium
Grain: straight or interlocked
Interlocked grain: slight

LOG DESCRIPTION

Diameter: from 70 to 100 cm
Thickness of sapwood: from 8 to 10 cm
Floats: no
Log durability: moderate (treatment recommended)

Note: Wood pink brown with copper glints, darkening with light. Possible presence of wind shakes. Resin canals mainly in sapwood.

PHYSICAL PROPERTIES

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

MECHANICAL AND ACOUSTIC PROPERTIES

| | <u>Mean</u> | <u>Std dev.</u> |
|----------------------------------|-------------|-----------------|
| Specific gravity *: | 0,72 | 0,07 |
| Monnin hardness *: | 5,4 | 1,9 |
| Coeff. of volumetric shrinkage: | 0,55 % | 0,17 % |
| Total tangential shrinkage (TS): | 6,8 % | 1,1 % |
| Total radial shrinkage (RS): | 3,7 % | 0,7 % |
| TS/RS ratio: | 1,8 | |
| Fiber saturation point: | 22 % | |
| Stability: stable | | |

| | <u>Mean</u> | <u>Std dev.</u> |
|----------------------------|-------------|-----------------|
| Crushing strength *: | 61 MPa | 6 MPa |
| Static bending strength *: | 115 MPa | 2 MPa |
| Modulus of elasticity *: | 18640 MPa | 3944 MPa |

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

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 3 - moderately 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 2 - moderately permeable

Use class ensured by natural durability: class 2 - inside or under cover (dampness possible)

Species covering the use class 5: No

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: slow

Risk of distortion: high risk

Risk of casehardening: no

Risk of checking: slight risk

Risk of collapse: no

Possible drying schedule: 4

| 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: fairly high

Sawteeth recommended: stellite-tipped

Cutting tools: tungsten carbide

Peeling: good

Slicing: good

Note: Sometimes clogging of sawblades and tools due to resin. Irregular grain may cause a fuzzy surface in planing.

ASSEMBLING

Nailing / screwing: good

Gluing: correct

COMMERCIAL GRADING

Appearance grading for sawn timbers: According to SATA grading rules (1996)

For the "General Purpose Market":

Possible grading for square edged timbers: choix I, choix II, choix III, choix IV

Possible grading for short length lumbers: choix I, choix II

Possible grading for short length rafters: choix I, choix II, choix III

For the "Special Market":

Possible grading for strips and small boards (ou battens): choix I, choix II, choix III

Possible grading for rafters: choix I, choix II, choix III

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

Light carpentry

Interior joinery

Sliced veneer

Formwork

Exterior joinery

Note: Low yield due to resin canal and wide sapwood.

Veneer for back or face of plywood

Wood frame house

Current furniture or furniture components

Flooring

Boxes and crates

MAIN LOCAL NAMES

| <u>Country</u> | <u>Local name</u> | <u>Country</u> | <u>Local name</u> |
|----------------|-------------------|----------------|-------------------|
| Cameroon | LUMBANDJII | Gabon | GHEOMBI |
| Gabon | NGOM | | |

