

Family: MYRISTICACEAE (angiosperm)

Scientific name(s): *Staudtia kamerunensis*

Commercial restriction: no commercial restriction

## WOOD DESCRIPTION

Color: red brown  
 Sapwood: clearly demarcated  
 Texture: fine  
 Grain: straight  
 Interlocked grain: absent

Note: Heartwood orangey yellow brown to red brown with darker veins. Sometimes oily surface. Grain sometimes wavy.

## LOG DESCRIPTION

Diameter: from 50 to 90 cm  
 Thickness of sapwood: from 8 to 10 cm  
 Floats: no  
 Log durability: good

## 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> | <u>Std dev.</u> |
|----------------------------------|-------------|-----------------|
| Specific gravity *:              | 0,88        | 0,06            |
| Monnin hardness *:               | 7,5         | 2,9             |
| Coeff. of volumetric shrinkage:  | 0,56 %      | 0,07 %          |
| Total tangential shrinkage (TS): | 6,0 %       | 0,8 %           |
| Total radial shrinkage (RS):     | 4,6 %       | 1,0 %           |
| TS/RS ratio:                     | 1,3         |                 |
| Fiber saturation point:          | 24 %        |                 |
| Stability:                       | stable      |                 |

## MECHANICAL AND ACOUSTIC PROPERTIES

|   | <u>Mean</u>               | <u>Std dev.</u> |
|---|---------------------------|-----------------|
| Crushing strength *:  | 88 MPa                    | 10 MPa          |
| Static bending strength *:                                      | 151 MPa                   | 23 MPa          |
| Modulus of elasticity *:  | 18510 MPa                 | 3100 MPa        |
| (*: at 12% moisture content, with 1 MPa = 1 N/mm <sup>2</sup> ) |                           |                 |
| Musical quality factor:   | 118,3 measured at 2354 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 1 - very durable

Dry wood borers: durable - sapwood demarcated (risk limited to sapwood)

Termites (according to E.N. standards): class D - durable

Treatability (according to E.N. standards): class 4 - not permeable

Use class ensured by natural durability: class 4 - in ground or fresh water contact

Species covering the use class 5: No

Note: Presence of transition wood with a lower durability.

According to the European standard NF EN 335, performance length might be modified by the intensity of end-use exposition.

## REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks: does not require any preservative treatment

In case of risk of temporary humidification: does not require any preservative treatment

In case of risk of permanent humidification: does not require any preservative treatment

## DRYING

|  |                             |                  |          |                  |
|--|-----------------------------|------------------|----------|------------------|
| Drying rate: slow  | Possible drying schedule: 4 |                  |          |                  |
| Risk of distortion: slight risk  |                             | Temperature (°C) |          |                  |
| Risk of casehardening: no  | M.C. (%)                    | dry-bulb         | wet-bulb | Air humidity (%) |
| Risk of checking: high risk  | Green                       | 42               | 39       | 82               |
| Risk of collapse: no   | 50                          | 48               | 43       | 74               |
| Note: Must be dried slowly and carefully to avoid pockets of moisture. Initial surface drying prior to kiln drying is recommended. | 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: not recommended or without interest  
 Slicing: nood  
 Note: Requires power.

## ASSEMBLING

Nailing / screwing: good but pre-boring necessary  
 Gluing: correct  
 Note: Tends to split when nailing.

## 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

|   |   |
|---|---|
| Cabinetwork (high class furniture)              | Exterior joinery                                    |
| Interior joinery                                | Stairs (inside)                                     |
| Sliced veneer                                   | Flooring  |
| Current furniture or furniture components       | Turned goods  |
| Seats   | Ship building (ribs)                                |
| Ship building (planking and deck)               | Heavy carpentry                                     |
| Interior panelling                              | Industrial or heavy flooring                        |
| Exterior panelling                              | Bridges (parts not in contact with water or ground) |
| Vehicle or container flooring                   | Hydraulic works (fresh water)                       |
| Bridges (parts in contact with water or ground) | Sleepers  |
| Resistant to one or several acids               |   |

Note: As the wood presents different colours, it is recommended to discolour the surface.

## MAIN LOCAL NAMES

| <u>Country</u>                   | <u>Local name</u> | <u>Country</u>                   | <u>Local name</u> |
|----------------------------------|-------------------|----------------------------------|-------------------|
| Angola                           | MENGA-MENGA       | Cameroon                         | M'BONDA           |
| Congo                            | MENGA-MENGA       | Gabon                            | M'BOUN            |
| Gabon                            | NIOVE             | Equatorial Guinea                | BOKAPI            |
| Nigeria                          | OROPA             | Central African Republic         | MOLANGA           |
| Democratic Republic of the Congo | KAMASHI           | Democratic Republic of the Congo | SUSUMENGA         |

