

Family: BURSERACEAE (angiosperm)

Scientific name(s): Aucoumea klaineana

Commercial restriction: no commercial restriction

WOOD DESCRIPTION

Color: light red
Sapwood: clearly demarcated
Texture: fine
Grain: straight or interlocked
Interlocked grain: slight

Note: More or less dark pinkish white to red brown, darkens with age. Sometimes lustrous or pearly. The grain can be slightly wavy.

LOG DESCRIPTION

Diameter: from 60 to 120 cm
Thickness of sapwood: from 2 to 5 cm
Floats: yes
Log durability: moderate (treatment recommended)

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 *: | 0.44 | 0.06 |
| Monnin hardness *: | 1.6 | 0.6 |
| Coeff. of volumetric shrinkage: | 0.33 % | 0.09 % |
| Total tangential shrinkage (TS): | 6.9 % | 1.6 % |
| Total radial shrinkage (RS): | 4.6 % | 1.1 % |
| TS/RS ratio: | 1.5 | |
| Fiber saturation point: | 40 % | |

Stability: moderately stable to poorly stable

MECHANICAL AND ACOUSTIC PROPERTIES

| | <u>Mean</u> | <u>Std dev.</u> |
|----------------------------|-------------|-----------------|
| Crushing strength *: | 36 MPa | 5 MPa |
| Static bending strength *: | 62 MPa | 11 MPa |
| Modulus of elasticity *: | 9690 MPa | 1231 MPa |

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

Musical quality factor: 114.3 measured at 2537 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: class D - durable (sapwood demarcated, risk limited to sapwood)

Termites (according to E.N. standards): class S - susceptible

Treatability (according to E.N. standards): class 3 - poorly permeable

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

Species covering the use class 5: no

Note: This species is listed in the European standard NF EN 350-2.

REQUIREMENT OF A PRESERVATIVE TREATMENT

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

In case of risk of temporary humidification: use not recommended

In case of risk of permanent humidification: use not recommended

DRYING

Drying rate: rapid

Risk of distortion: slight risk

Risk of casehardening: no

Risk of checking: slight risk

Risk of collapse: no

Possible drying schedule: 2

| M.C. (%) | Temperature (°C) | | Air humidity (%) |
|----------|------------------|----------|------------------|
| | dry-bulb | wet-bulb | |
| Green | 50 | 47 | 84 |
| 40 | 50 | 45 | 75 |
| 30 | 55 | 47 | 67 |
| 20 | 70 | 55 | 47 |
| 15 | 75 | 58 | 44 |

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: high

Sawteeth recommended: stellite-tipped

Cutting tools: tungsten carbide

Peeling: good

Slicing: good

Note: Some difficulties in planing due to interlocked grain. Tendency to woolliness. Filling is necessary in order to obtain a good finish.

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 : M3 (moderately inflammable)

Thickness < 14 mm : M4 (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

Sliced veneer

Formwork

Moulding

Interior panelling

Veneer for back or face of plywood

Blockboard

Boxes and crates

Interior joinery

Current furniture or furniture components

MAIN LOCAL NAMES

| <u>Country</u> | <u>Local name</u> | <u>Country</u> | <u>Local name</u> |
|-------------------|-------------------|-------------------|-------------------|
| Cameroon | MFUMU | Congo | N' KUMI |
| Gabon | ANGOUMA | Gabon | OKOUME |
| Equatorial Guinea | N' GOUMI | Equatorial Guinea | OKUME |
| United Kingdom | GABOON | | |



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