

## Onzabili

Family. Anacardiaceae

Botanical Name(s).

*Antrocaryon klaineinum*

*Antrocaryon micraster*

*Antrocaryon nannanii*

Continent. Africa

CITES. This species is not listed in the CITES Appendices (Washington Convention 2023).

### Description of logs

Diameter. From 65 to 120 cm

Thickness of sapwood. -

Floats. Yes

Log durability. Low (treatment necessary)

### Description of wood

Colour reference. Pinkish white

Sapwood. Not demarcated

Texture. Medium

Grain. Straight or interlocked

Interlocked grain. Slight

Notes. Heartwood pinkish white to light brown. Grain sometimes wavy.

### Physics and mechanics

*The properties indicated are for mature wood. These properties may vary significantly depending on the origin and growing conditions of the wood.*

| Property                             | Average value |
|--------------------------------------|---------------|
| Specific gravity <sup>1</sup>        | 0.55          |
| Monnin hardness <sup>1</sup>         | 1.9           |
| Coefficient of volumetric shrinkage  | 0.45 % per %  |
| Total tangential shrinkage (St)      | 6.9 %         |
| Total radial shrinkage (Sr)          | 4.6 %         |
| Ratio St/Sr                          | 1.5           |
| Fibre saturation point               | 31 %          |
| Thermal conductivity (λ)             | 0.19 W/(m.K)  |
| Lower heating value                  |               |
| Crushing strength <sup>1</sup>       | 40 MPa        |
| Static bending strength <sup>1</sup> | 76 MPa        |
| Modulus of elasticity <sup>1</sup>   | 13,450 MPa    |

<sup>1</sup> At 12 % moisture content, with 1 MPa = 1 N/mm

### Natural durability and preservation



Quarter sawn



Flat sawn

Resistance to fungi. Class 5 - not durable

Resistance to dry wood borers. Class S - susceptible (risk in all the wood)

Resistance to termites. Class S - susceptible

Treatability. Class 2 - moderately permeable

Use class ensured by natural durability.

Class 1 - inside (no dampness)

Notes. Prone to blue stain.

## Requirement of a preservative treatment

Against dry wood borer. Requires appropriate preservative treatment

In case of temporary humidification. Requires appropriate preservative treatment

In case of permanent humidification. Use not recommended

## Drying

Drying rate. Rapid to normal

Risk of distorsion. Slight risk

Risk of casehardening. No known specific risk

Risk of checking. Slight risk

Risk of collapse. No known specific risk

Notes.

Suggested drying program.

| Phases              | Duration (H) | MC (%) probes | T (°C) | Rh (%) | UGL (%) |
|---------------------|--------------|---------------|--------|--------|---------|
| <b>Prewarm 1</b>    |              | > 50          | 50     | 86     | 16.5    |
| <b>Prewarm 2</b>    | 3            | > 50          | 52     | 85     | 16.0    |
| <b>Drying</b>       |              | > 50          | 55     | 82     | 14.7    |
|                     |              | 50 - 40       | 55     | 80.0   | 13.8    |
|                     |              | 40 - 35       | 55     | 75.0   | 12.6    |
|                     |              | 35 - 30       | 56     | 73.0   | 12.0    |
|                     |              | 30 - 27       | 58     | 67.0   | 10.5    |
|                     |              | 27 - 24       | 60     | 58.0   | 8.9     |
|                     |              | 24 - 21       | 62     | 50.0   | 7.5     |
|                     |              | 21 - 18       | 64     | 45.0   | 6.8     |
|                     |              | 18 - 15       | 65     | 37.0   | 5.7     |
|                     |              | 15 - 12       | 65     | 34.0   | 5.3     |
|                     |              | 12 - 9        | 65     | 28.0   | 4.5     |
|                     |              | 9 - 6         | 65     | 24.0   | 4.0     |
| <b>Conditioning</b> | 6            |               | 58     | (3)    | (2)     |
| <b>Cooling</b>      | (1)          |               | Stop   | (3)    | (2)     |

(1) ) Cooling: until the temperature inside the kiln no longer exceeds external temperature by more than 30 °C.

(2) UGL = final H% x 0,8 to 0,9.

(3) Subtract RH from the UGL determined in (2) and temperature, using the Hailwood-Horrobin equation.

## Sawing and machining

Blunting effect. Normal

Sawteeth recommended. Ordinary or alloy steel

Cutting tools. Ordinary

Peeling. Good

Slicing. Good

Notes. Sometimes grain tearing. Filling is necessary in order to obtain a good finish.

## Assembling

Nailing and screwing. Good

## Commercial grading

Appearance grading for sawn timbers.

According to the ATIBT grading rules (2017), the main choices are: FAS (First And Second), n°1 Common and select, n°2 Common (see details of these rules on the ATIBT website).

Visual grading for structural applications

No visual grading for structural applications

## 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+A1 (August 2019).

It concerns structural graded timber in vertical uses and ceiling with mean density upper 0.35 and thickness upper 22 mm.

## End-uses

- Blockboard
- Boxes and crates
- Current furniture or furniture components
- Glued laminated
- Interior joinery
- Light carpentry
- Moulding
- Seats
- Sliced veneer
- Veneer for back or face of plywood
- Veneer for interior of plywood
- Wood frame house

Notes. Substitute for OKOUME (*Aucoumea klaineana*) or ILOMBA (*Pycnanthus angolensis*).

## Main local names

| Country                          | Local name |
|----------------------------------|------------|
| Angola                           | N'gongo    |
| Cameroon                         | Angonga    |
| Central African Republic         | Gongu      |
| Congo                            | N'gongo    |
| Côte d'Ivoire                    | Akoua      |
| Democratic Republic of the Congo | Mugongo    |
| Equatorial Guinea                | Anguekong  |
| Gabon                            | Onzabili   |

**Main local names****Country**

Ghana

Portugal (importated tropical timber)

**Local name**

Aprokuma

Mongongo