

Safukala

Family. Burseraceae

Botanical Name(s).

Dacryodes heterotricha

Dacryodes pubescens

Pachylobus pubescens (synonymous)

Continent. Africa

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

Description of logs

Diameter. From 50 to 80 cm

Thickness of sapwood. From 7 to 15 cm

Floats. No

Log durability. Moderate (treatment recommended)

Description of wood

Colour reference. Light brown

Sapwood. Not clearly demarcated

Texture. Medium

Grain. Interlocked

Interlocked grain. Marked

Notes. Can be commercialized blended with Ozigo (*Dacryodes buettneri*). Wood pinkish white to light brown. Possible presence of wind shakes.

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 ¹ | 0.68 |
| Monnin hardness ¹ | 5.2 |
| Coefficient of volumetric shrinkage | 0.49 % per % |
| Total tangential shrinkage (St) | 7.9 % |
| Total radial shrinkage (Sr) | 5.0 % |
| Ratio St/Sr | 1.6 |
| Fibre saturation point | 30 % |
| Thermal conductivity (λ) | 0.23 W/(m.K) |
| Lower heating value | 17,120 kJ/kg |
| Crushing strength ¹ | 62 MPa |
| Static bending strength ¹ | 112 MPa |
| Modulus of elasticity ¹ | 16,090 MPa |

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



Quarter sawn



Flat sawn

Natural durability and preservation

Resistance to fungi. Class 4 - poorly durable

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

Resistance to termites. Class D - durable

Treatability. Class 3 - poorly permeable

Use class ensured by natural durability.

Class 2 - inside or under cover (dampness possible)

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. Normal

Risk of distorsion. Slight risk

Risk of casehardening. No known specific risk

Risk of checking. High risk

Risk of collapse. No known specific risk

Notes.

Suggested drying program.

| Phases | Duration (H) | MC (%) probes | T (°C) | Rh (%) | UGL (%) |
|---------------------|--------------|---------------|--------|--------|---------|
| Prewarm 1 | | > 50 | 50 | 87 | 17.0 |
| Prewarm 2 | 4 | > 50 | 50 | 86 | 16.5 |
| Drying | | > 50 | 53 | 83 | 15.2 |
| | | 50 - 40 | 53 | 80.0 | 14.1 |
| | | 40 - 35 | 54 | 80.0 | 13.9 |
| | | 35 - 30 | 55 | 75.0 | 12.5 |
| | | 30 - 27 | 57 | 70.0 | 11.0 |
| | | 27 - 24 | 58 | 61.0 | 9.4 |
| | | 24 - 21 | 59 | 51.0 | 7.9 |
| | | 21 - 18 | 60 | 47.0 | 7.3 |
| | | 18 - 15 | 61 | 39.0 | 6.1 |
| | | 15 - 12 | 62 | 35.0 | 5.6 |
| | | 12 - 9 | 62 | 30.0 | 5.0 |
| | | 9 - 6 | 62 | 26.0 | 4.4 |
| Conditioning | 8 | | 55 | (3) | (2) |
| Cooling | (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. High

Sawteeth recommended. Stellite-tipped

Cutting tools. Tungsten carbide

Peeling. Good

Slicing. Not recommended or without interest

Notes. Difficulties in sawing and machining due to interlocked grain and silica content.

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
- Flooring
- Formwork
- Interior joinery
- Interior panelling
- Light carpentry
- Veneer for back or face of plywood
- Veneer for interior of plywood
- Wood frame house

Main local names

| Country | Local name |
|----------------------------------|--------------|
| Angola | Safoukala |
| Angola | Safucala |
| Congo | Safoukala |
| Congo | Safucala |
| Democratic Republic of the Congo | Mouquenquéri |
| Democratic Republic of the Congo | N'safu-nkala |
| Gabon | Mouganga |