Ossabel

Quarter sawn

Flat sawn

Family. Burseraceae

Botanical Name(s).

Dacryodes normandii

Continent. Africa

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

Description of logs

Diameter. From 60 to 80 cm

Thickness of sapwood. From 2 to 4 cm

Floats. Yes

Log durability. Moderate (treatment recommended)

Description of wood

Colour reference. Light brown

Sapwood. Not clearly demarcated

Texture. Medium

Grain. Straight or interlocked

Interlocked grain. Slight

Notes. 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[1]	0.59
Monnin hardness[1]	2.9
Coefficient of volumetric shrinkage	0.51 % per %
Total tangential shrinkage (St)	7.7 %
Total radial shrinkage (Sr)	4.6 %
Ratio St/Sr	1.7
Fibre saturation point	28 %
Thermal conductivity (λ)	0.20 W/(m.K)
Lower heating value	
Crushing strength[1]	48 MPa
Static bending strength[1]	87 MPa
Modulus of elasticity[1]	15,040 MPa

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

Natural durability and preservation

Resistance to fungi. Class 3 - moderately durable

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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 to slow

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. Must be dried carefully in order to reduce defects.

Suggested drying program.

Phases	Duration (H)	MC (%) probes	T (°C)	Rh (%)	UGL (%)
Prewarm 1		> 50	50	86	16.5
Prewarm 2	3	> 50	52	85	16.0
Drying		> 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
Conditioning	6		58	(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

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Slicing. Not recommended or without interest

Notes. Some difficulties in presence of interlocked grain.

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
- Fiber or particle boards
- Formwork
- Glued laminated
- Interior joinery
- Interior panelling
- Light carpentry
- Seats
- Veneer for back or face of plywood
- Veneer for interior of plywood
- Wood frame house

Main local names

Country	Local name
Congo	Koma
Gabon	Ossabel

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