

Dina

Family. Leguminosae (Caesalpiniaceae)

Botanical Name(s).

Bobgunnia fistuloides

Swartzia fistuloides (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 1 to 2 cm

Floats. No

Log durability. Good

Description of wood

Colour reference. Light red

Sapwood. Clearly demarcated

Texture. Fine

Grain. Interlocked

Interlocked grain. Slight

Notes. Wood pinkish white to light red, with red brown veins.

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	1.02
Monnin hardness ¹	9.1
Coefficient of volumetric shrinkage	0.66 % per %
Total tangential shrinkage (St)	6.2 %
Total radial shrinkage (Sr)	4.2 %
Ratio St/Sr	1.5
Fibre saturation point	19 %
Thermal conductivity (λ)	0.33 W/(m.K)
Lower heating value	
Crushing strength ¹	90 MPa
Static bending strength ¹	149 MPa
Modulus of elasticity ¹	21,290 MPa

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

Natural durability and preservation

Resistance to fungi. Class 1 - very durable



Quarter sawn



Flat sawn

Resistance to dry wood borers. Class D - durable (sapwood demarcated, risk limited to sapwood)

Resistance to termites. Class D - durable

Treatability. Class 3 - poorly permeable

Use class ensured by natural durability.

Class 4 - in ground or fresh water contact

Notes. This species is listed in the European standard NF EN 350 (2016). According to the European standard NF EN 335 (2013), performance length might be modified by the intensity of end-use exposition.

Requirement of a preservative treatment

Against dry wood borer. Does not require any preservative treatment

In case of temporary humidification. Does not require any preservative treatment

In case of permanent humidification. Does not require any preservative treatment

Drying

Drying rate. Slow

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. Some risks of end checking and extension of existing cracks.

Suggested drying program.

Phases	Duration (H)	MC (%) probes	T (°C)	Rh (%)	UGL (%)
Prewarm 1		> 50	40	86	17.0
Prewarm 2	4	> 50	43	85	16.5
Drying		> 50	45	83	15.7
		50 - 40	45	80.0	14.6
		40 - 35	45	77.0	13.8
		35 - 30	45	74.0	12.9
		30 - 27	47	69.0	11.5
		27 - 24	49	61.0	9.9
		24 - 21	50	52.0	8.4
		21 - 18	53	48.0	7.7
		18 - 15	56	41.0	6.6
		15 - 12	59	36.0	5.9
		12 - 9	61	30.0	5.0
		9 - 6	65	29.0	4.7
Conditioning	8		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. Normal

Sawteeth recommended. Ordinary or alloy steel

Cutting tools. Ordinary

Peeling. Not recommended or without interest

Slicing. Good

Notes. Requires power. Sawblades can vibrate and overheat. Tendency to burn the wood in boring. Sometimes slight woolliness. Sawdust sometimes irritant.

Assembling

Nailing and screwing. Good but pre-boring necessary

Notes. Very high specific gravity: gluing must be especially performed in compliance with the code of practice.

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

- Cabinetwork (high class furniture)
- Cooperage
- Percussion instruments
- Resistant to one or several acids
- Sculpture
- Sliced veneer
- Tool handles (resilient woods)
- Turned goods



Chest of drawers in Pao Rosa (1950-1970) – Éric Orsini, Pézenas (France).

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Main local names

Country	Local name
Cameroon	Nom nsas
Central African Republic	N'guessa
Congo	Kisasamba
Côte d'Ivoire	Boto
Democratic Republic of the Congo	Nsakala
France (importated tropical timber)	Pao rosa
Gabon	Oken
Mozambique	Pau ferro
Nigeria	Udoghogho
United Kingdom (importated tropical timber)	Dina