

Zebrano

Family. Leguminosae (Caesalpiaceae)

Botanical Name(s).

Microberlinia bisulcata

Microberlinia brazzavillensis

Continent. Africa

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

Description of logs

Diameter. From 60 to 100 cm

Thickness of sapwood. From 6 to 10 cm

Floats. No

Log durability. Moderate (treatment recommended)

Description of wood

Colour reference. Light brown

Sapwood. Clearly demarcated

Texture. Coarse

Grain. Interlocked

Interlocked grain. Slight

Notes. Wood yellow brown to light brown, with dark brown veins. Sometimes highly interlocked grain.

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	0.79
Monnin hardness ¹	5.0
Coefficient of volumetric shrinkage	0.56 % per %
Total tangential shrinkage (St)	11.0 %
Total radial shrinkage (Sr)	8.8 %
Ratio St/Sr	1.3
Fibre saturation point	30 %
Thermal conductivity (λ)	0.26 W/(m.K)
Lower heating value	
Crushing strength ¹	62 MPa
Static bending strength ¹	110 MPa
Modulus of elasticity ¹	17,520 MPa

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

Natural durability and preservation



Quarter sawn



Flat sawn

Resistance to fungi. Class 3 - moderately durable

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

Resistance to termites. Class M - moderately 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. Does not require any preservative treatment

In case of temporary humidification. Requires appropriate preservative treatment

In case of permanent humidification. Use not recommended

Drying

Drying rate. Slow

Risk of distorsion. High risk

Risk of casehardening. No known specific risk

Risk of checking. High risk

Risk of collapse. No known specific risk

Notes. Sawnwoods must be properly stacked, dried slowly and preferably on quartersawn in order to reduce distortions.

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. Normal

Sawteeth recommended. Ordinary or alloy steel

Cutting tools. Tungsten carbide

Peeling. Not recommended or without interest

Slicing. Good

Notes. Risk of tearing in presence of highly interlocked grain.

Assembling

Nailing and screwing. Good but pre-boring necessary

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)
- Current furniture or furniture components
- Interior panelling
- Sliced veneer
- Tool handles (resilient woods)
- Turned goods
- Wood frame house
- Wood-ware



Indoor restaurant décor – by Brenco Exotic Woods (United States).

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Main local names

Country

Cameroon

Gabon

Germany (importated tropical timber)

United Kingdom (importated tropical timber)

United Kingdom (importated tropical timber)

Local name

Allen élé

Zingana

Zebrano

Zebrano

Zebrawood