

Ohia

Family. Cannabaceae (Ulmaceae)

Botanical Name(s).

Celtis gomphophylla

Celtis mildbraedii

Celtis zenkeri

Celtis soyauxii (synonymous)

Celtis p.p.

Continent. Africa

CITES.

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

Notes. Diania and Ohia are two different groups of *Celtis* species. Sometimes they are grouped together under the name of African *Celtis*.

Description of logs

Diameter. From 60 to 90 cm

Thickness of sapwood. -

Floats. Yes

Log durability. Low (treatment necessary)

Description of wood

Colour reference. Creamy white

Sapwood. Not demarcated

Texture. Medium

Grain. Straight or interlocked

Interlocked grain. Slight

Notes. Uniformly whitish or with uneven greenish-brown veins in the innermost part of the logs.

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	0.75
Monnin hardness ¹	7.0
Coefficient of volumetric shrinkage	0.47 % per %
Total tangential shrinkage (St)	8.4 %
Total radial shrinkage (Sr)	4.8 %
Ratio St/Sr	1.8 %
Fibre saturation point	28
Thermal conductivity (λ)	0.25 W/(m.K)
Lower heating value	18,790 kJ/kg
Crushing strength ¹	58 MPa



Half quarter sawn



Quarter sawn

Static bending strength ¹	113 MPa
Modulus of elasticity ¹	16,500 MPa

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

Natural durability and preservation

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 1 - easily permeable

Use class ensured by natural durability.

Class 1 - inside (no dampness)

Notes. Very 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. 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

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	85	15.7
		50 - 40	53	82.0	14.6
		40 - 35	54	78.0	13.4
		35 - 30	55	77.0	12.9
		30 - 27	57	73.0	11.9
		27 - 24	58	68.0	10.7
		24 - 21	60	61.0	9.3
		21 - 18	62	52.0	7.9
		18 - 15	64	43.0	6.6
		15 - 12	65	39.0	6.0
		12 - 9	65	31.0	5.0
		9 - 6	65	28.0	4.5
Conditioning	8		58	(3)	(2)
Cooling	(1)		Arrêt	(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. Fairly high

Sawteeth recommended. Stellite-tipped

Cutting tools. Tungsten carbide

Peeling. Good

Slicing. Good

Notes. Possible sawing and machining difficulties if there is interlocked grain.

Assembling

Nailing and screwing. Good but pre-boring necessary

Notes. Tends to split with nailing.

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 structure

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

- Boxes and crates
- Current furniture or furniture components
- Flooring
- Formwork
- Heavy carpentry
- Interior joinery
- Interior panelling
- Matches
- Moulding
- Sliced veneer
- Stairs (inside)
- Tool handles (resilient woods)
- Turned goods
- Vehicle or container flooring
- Veneer for back or face of plywood
- Veneer for interior of plywood

Notes. Machining dust is allergenic.



Flooring in a public building – by Brenco Exotic Woods (United States).

Main local names

Country	Local name
Benin	Bawe
Cameroon	Odou
Congo	Édou
Côte d'Ivoire	Asan
Côte d'Ivoire	Ba
Democratic Republic of the Congo	Bolundé
Democratic Republic of the Congo	Kayombo
Democratic Republic of the Congo	Liniumbu
Ghana	Celtis
Ghana	Esa
Kenya	Shiunza
Nigeria	Ohia
Uganda	Mukokukoma
Uganda	Namanuka