

## Gombé

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**Family.** Leguminosae (Caesalpiniaceae)

**Botanical Name(s).**

*Didelotia africana*

*Didelotia brevipaniculata*

*Didelotia idae*

*Didelotia letouzeyi*

*Didelotia p.p.*

**Continent.** Africa

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

**Notes.** Sometimes inappropriately marketed as Naga, Meblo or Andoung.

### Description of logs

**Diameter.** From 80 to 120 cm

**Thickness of sapwood.** From 5 to 10 cm

**Floats.** Yes

**Log durability.** Low (treatment necessary)

### Description of wood

**Colour reference.** Salmon pink

**Sapwood.** Clearly demarcated

**Texture.** Medium

**Grain.** Straight or interlocked

**Interlocked grain.** Slight to marked

**Notes.** Sapwood whitish to yellowish. Wood sometimes pink orangey with sometimes greenish 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 <sup>1</sup>	0.64
Monnin hardness <sup>1</sup>	2.8
Coefficient of volumetric shrinkage	0.50 % per %
Total tangential shrinkage (St)	8.6 %
Total radial shrinkage (Sr)	4.6 %
Ratio St/Sr	1.9
Fibre saturation point	32 %
Thermal conductivity (λ)	0.22 W/(m.K)
Lower heating value	18,640 kJ/kg
Crushing strength <sup>1</sup>	54 MPa
Static bending strength <sup>1</sup>	90 MPa



Flat sawn



Quarter sawn

Modulus of elasticity <sup>1</sup>	13,940 MPa
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<sup>1</sup> At 12 % moisture content, with 1 MPa = 1 N/mm

## Natural durability and preservation

Resistance to fungi. Class 4 - poorly durable

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

Resistance to termites. Class S - susceptible

Treatability. Class 3 - poorly permeable

Use class ensured by natural durability.

Class 2 - inside or under cover (dampness possible)

Notes. Low to medium resistance to decay fungi.

## 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. Slight risk

Risk of casehardening. Yes

Risk of checking. Slight risk

Risk of collapse. No known specific risk

Notes. Risks of casehardening with thick boards. Slow drying in order to reduce the risks of cracks (high shrinkage).

Suggested drying program.

Phases	Duration (H)	MC (%) probes	T (°C)	Rh (%)	UGL (%)
<b>Prewarm 1</b>		> 40	35	87	18.0
<b>Prewarm 2</b>	6	> 40	38	85	17.0
<b>Drying</b>		> 40	41	82	15.7
		40 - 35	44	81.0	15.0
		35 - 30	46	80.0	14.5
		30 - 25	48	77.0	13.5
		25 - 20	50	72.0	12.0
		20 - 18	52	63.0	10.0
		18 - 16	54	54.0	8.5
		16 - 14	56	47.0	7.4
		14 - 12	58	41.0	6.5
		12 - 9	60	34.0	5.6
<b>Conditioning</b>	8		55	(3)	(2)
<b>Cooling</b>	(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. Good

Slicing. Good

Notes. Keep sharp cutters in order to obtain a good finish in case of interlocked grain. Veneers quality is medium.

## 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).

## Fire safety

Conventional French grading.

Thickness > 14 mm: M3 (moderately inflammable)

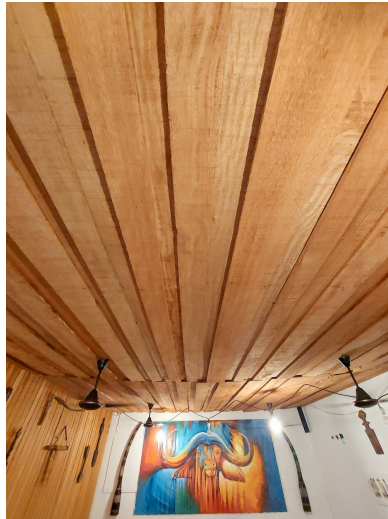
Thickness < 14 mm: M4 (easily inflammable)

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
- Coffin
- Current furniture or furniture components
- Exterior joinery
- Formwork
- Glued laminated
- Indoor staircases
- Interior joinery
- Interior panelling
- Light carpentry
- Seats
- Sliced veneer
- Vehicle or container flooring
- Veneer for back or face of plywood
- Veneer for interior of plywood
- Wood frame house



Nyari restaurant ceiling - Port-Gentil (Gabon)

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### Main local names

Country	Local name
Cameroon	Ékop-gombé
Cameroon	Gombé
Côte d'Ivoire	Broutou
Côte d'Ivoire	Toubaouaté
Gabon	Angok
Gabon	Towé
Liberia	Bondu
Sierra Leone	Timba