

# **Angueuk**

Family. Olacaceae

Botanical Name(s).

Ongokea gore

Continent. Africa

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

## **Description of logs**

Diameter. From 80 to 100 cm

Thickness of sapwood. From 7 to 10 cm

Floats. No

Log durability. Good

# **Description of wood**

Colour reference. Yellow

Sapwood. Not clearly demarcated

Texture. Medium

Grain. Straight or interlocked

Interlocked grain. Slight

Notes. Wood pale yellow slightly brownish, darkens with light. Ribbon like aspect on quartersawn. 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 <sup>1</sup>	0.88
Monnin hardness <sup>1</sup>	5.8
Coefficient of volumetric shrinkage	0.57 % per %
Total tangential shrinkage (St)	11.8 %
Total radial shrinkage (Sr)	4.5 %
Ratio St/Sr	2.6
Fibre saturation point	30 %
Thermal conductivity (λ)	0.29 W/(m.K)
Lower heating value	
Crushing strength <sup>1</sup>	67 MPa
Static bending strength <sup>1</sup>	107 MPa
Modulus of elasticity <sup>1</sup>	15,610 MPa
1 At 12 % maisture content with 1 MDa = 1 N/mm	

<sup>&</sup>lt;sup>1</sup> At 12 % moisture content, with 1 MPa = 1 N/mm

Notes. Hardness varies from fairly hard to hard.

# Natural durability and preservation



Quarter sawn







Resistance to fungi. Class 2 - durable

Resistance to dry wood borers. Class D - durable (heartw. durable but sapw. not clearly demarcated)

Resistance to termites. Class D - durable

Treatability. Class 3 - poorly permeable

Use class ensured by natural durability.

Class 3 - not in ground contact, outside

Notes. This species is listed in the European standard NF EN 350 (2016). The possible presence of few demarcated sapwood in sawnwoods may have an influence on the expected durability. 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. Requires appropriate preservative treatment

In case of temporary humidification. Does not require any 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. Slight risk

Risk of collapse. No known specific risk

Notes. Must be dried on quartersawns to reduce distortion.

Suggested drying program.

Phases	<b>Duration (H)</b>	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)		Stop	(3)	(2)

<sup>(1)</sup> Cooling: until the temperature inside the kiln no longer exceeds external temperature by more than 30 °C.

#### Sawing and machining

<sup>(2)</sup> UGL = final  $H\% \times 0.8$  to 0.9.

<sup>(3)</sup> Subtract RH from the UGL determined in (2) and temperature, using the Hailwood-Horrobin equation.





Blunting effect. Normal

Sawteeth recommended. Ordinary or alloy steel

Cutting tools. Ordinary

Peeling. Not recommended or without interest

Slicing. Good

Notes. Requires power.

### **Assembling**

Nailing and screwing. Good but pre-boring necessary

Notes. Tends to split when nailing. 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**

- Exterior joinery
- Heavy carpentry
- Industrial or heavy flooring
- Interior joinery
- Sliced veneer
- Turned goods
- Vehicle or container flooring

#### Main local names

Country	Local name
Cameroon	Angueuk
Cameroon	Bwelabako
Central African Republic	Mobengé
Congo	Sanu
Côte d'Ivoire	Kouéro
Democratic Republic of the Congo	Boléko
Gabon	Angueuk
Ghana	Bodwe
Nigeria	Ekuso





Nigeria Elede