

MAKORE



Family: SAPOTACEAE (angiosperm)
Scientific name(s): *Tieghemella heckilii*
Tieghemella africana
Dumoria spp. (synonymous)
Commercial restriction: no commercial restriction

WOOD DESCRIPTION

Color: red brown
Sapwood: clearly demarcated
Texture: medium
Grain: straight or interlocked
Interlocked Grain: marked but not frequent

Note: Some logs are floatable. Wood is dark pinkish brown to dark red brown, sometimes with purplish glints and/or pale veins slightly distinct. Often moiré

LOG DESCRIPTION

Diameter: 35 – 51 inches
Thickness of Sapwood: 1.6– 3.15 inches
Floats: yes
Log Durability: good

PHYSICAL PROPERTIES

Physical and mechanical properties are based on mature heartwood specimens. These properties can vary greatly depending on origin and growth conditions.

	<u>Mean</u>	<u>Std. Dev.</u>
Specific Gravity*:	0.69	0.05
Janka Hardness (lbs):	1,200	
Volumetric Shrinkage:	0.48%	0.05%
Total Tangential Shrinkage (TS):	7.3%	0.5%
Total Radial Shrinkage (RS):	5.6%	0.6%
TS/RS Ratio:	1.3	
Fiber Saturation Point:	28%	
Stability:	Moderately stable to stable	

MECHANICAL/ACOUSTIC

	<u>Mean</u>
Crushing Strength*:	8,557 lbf
Static Bending Strength*:	14,213 lbf
Modulus of Elasticity*:	2,008,772 lbf

Musical Quality Factor: 92.5 measured at 2213 Hz

**At 12% moisture content.*

NATURAL DURABILITY AND TREATABILITY

Fungi and termite resistance refers to end-uses under temperate climate. Except for special comments on sapwood, natural durability is based on mature heartwood. Sapwood must always be considered as non-durable against wood degrading agents. E.N. = Euro Norm

Funghi (According to E.N. standards):	class 1 - very durable
Dry Wood Borers:	class D - durable (sapwood demarcated, risk limited to sapwood)
Termites (According to E.N. standards):	class D - durable
Treatability (according to E.N. standards):	class 4 - not permeable
Use class ensured by natural durability:	class 4 - in ground or fresh water contact
Species covering the use class 5:	yes

Note: This species is listed in the European standard NF EN 350-2. It naturally covers the use class 5 (end-uses in marine environment or in brackish water) due to its high silica content.

According to the European standard NF EN 335, performance length might be modified by the intensity of end-use exposition.

REQUIREMENT OF A PRESERVATIVE TREATMENT

Against dry wood borer attacks:	does not require any preservative treatment
In case of risk of temporary humidification:	does not require any preservative treatment
In case of risk of permanent humidification:	does not require any preservative treatment

DRYING

Drying Rate: normal
Risk of Distortion: slight risk
Risk of Casehardening: no
Risk of Checking: slight risk
Risk of Collapse: no

Possible Drying Schedule: 2

Note: Initial surface drying prior to kiln drying is recommended in order to reduce defects.

M.C. (%)	Temperature (°F)		
	Dry-Bulb	Wet-Bulb	Air Humidity (%)
Green	122	116.6	84
40	122	113	75
30	131	116.6	67
20	158	131	47
15	167	136.4	44

This schedule is given for information only and is applicable to thickness lower or equal to 1.5 in. It must be used in compliance with the code of practice. For thickness from 1.5 to 3 in, the air relative humidity should be increased by 5% at each step. For thickness over 3 in, a 10% increase should be considered.

SAWING AND MACHINING

Blunting Effect: high
Sawteeth Recommended: stellite-tipped
Cutting Tools: tungsten carbide
Peeling: good
Slicing: good
Note: Sawdust is very irritant. Sawblades can sometimes become clogged.

ASSEMBLING

Nailing / screwing: good but pre-boring necessary
Gluing: correct
Note: Tends to split when nailing. Gluing requires care (dense wood)

END-USES

Exterior Joinery
Flooring
Bridges (parts no in contact with ground or water)
Exterior paneling
Sliced veneer
Light carpentry
Ship building (planking and deck)
Veneer for back or face of plywood
Sculpture
Interior joinery
Stairs (interior)
Current furniture or furniture components
Cabinetwork (high class furniture)
Ship building (ribs)
Veneer for interior of plywood
Vehicle or container flooring
Turned goods

MAIN LOCAL NAMES

<u>Country</u>	<u>Local Name</u>
Cameroon	Nom Adjap Elang
Ivory Coast	Makore
Ghana	Baku, Abacu
France	Douka
Congo	N'Duka
Equatorial Guinea	Okola
Germany	Douka

Works Cited:

CIRAD'S *Biomass, Wood, Energy, Bioproducts Research Unit (BioWooEB)*
Meier, E. (2015), Wood, United States of America