

Family: FABACEAE (angiosperm)
Scientific name(s): *Dipteryx spp.*
Coumarouna spp. (synonymous)
Commercial restriction: no commercial restriction

WOOD DESCRIPTION

Color: red brown
Sapwood: clearly demarcated
Texture: medium
Grain: interlocked
Interlocked Grain: marked
Note: unpleasant odor when green. Heartwood varies from yellow brown to reddish brown with darker thin veins.

LOG DESCRIPTION

Diameter: 19.7 – 35.4 inches
Thickness of Sapwood: 0.8 – 1.2 inches
Floats: no
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*:	1.07	0.05
Janka Hardness (lbs):	3,300	
Volumetric Shrinkage:	0.73%	0.09%
Total Tangential Shrinkage (TS):	7.7%	1.2%
Total Radial Shrinkage (RS):	5.5%	0.9%
TS/RS Ratio:	1.4	
Fiber Saturation Point:	22%	

MECHANICAL/ACOUSTIC

Stability:	Moderately stable to poorly stable
	<u>Mean</u>
Crushing Strength*:	14,938 lbf
Static Bending Strength*:	24,656 lbf
Modulus of Elasticity*:	3,859,452 lbf

**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:	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:	no
Note:	

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:	slow
Risk of Distortion:	slight risk
Risk of Casehardening:	no
Risk of Checking:	high risk
Risk of Collapse:	no

Note: Drying must be done with care and slowly. Risks of casehardening for thick boards.

M.C. (%)	Temperature (°F)		
	Dry-Bulb	Wet-Bulb	Air Humidity (%)
Green	104	98.6	82
40	111.2	100.4	68
30	111.2	96.8	59
20	114.8	96.8	52
15	120.2	98.6	46

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:	fairly high
Sawteeth Recommended:	stellite-tipped
Cutting Tools:	tungsten carbide
Peeling:	not recommended or without interest
Slicing:	good

Note: Sawing and machining are difficult due to hardness and interlocked grain. Requires power.

ASSEMBLING

Nailing / screwing:	good but pre-boring necessary
Gluing:	poor

END-USES

Sleepers
Bridges
Industrial or heavy flooring
Poles
Ship building (planking and deck)
Heavy carpentry
Tool handles (resilient woods)
Hydraulic works (sea water and fresh water)
Wood frame house
Stakes
Cooperage
Sliced Veneer
Turned goods
Outdoor decking
Note: Slicing only for decorative veneer

MAIN LOCAL NAMES

Country	Local Name
Bolivia	Almendrillo
Brazil	Cumarú
Brazil	Cumarurana
Brazil	Champanha
Brazil	Cumarú Ferro
Guyana	Kumarú
French Guiana	Gaic de Cayenne, Tonka
Honduras	Ebo
Peru	Shihuahuaco Amarillo, Charapilla
Suriname	Tonka
Venezuela	Sarrapia
Guyana	Tonka Bean
Columbia	Sarrapia

Works Cited:

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