

GONÇALO-ALVEZ (TIGERWOOD)



Family: ANACARDIACEAE (angiosperm)
Scientific name(s): *Astronium balansae*
Astronium fraxinifolium
Astronium graveolens
Astronium lecointei
Astronium urundeuva
Commercial restriction: No commercial restriction.

WOOD DESCRIPTION

Color: dark brown
Sapwood: clearly demarcated
Texture: fine
Grain: straight or interlocked
Interlocked Grain: slight

Note:

Pinkish brown to yellow brown, becoming red brown to dark brown, with very irregularly spaced black brown veins.

LOG DESCRIPTION

Diameter: 23 – 31 inches
Thickness of Sapwood: 1.5 – 4 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*:	0.80	0.11
Janka Hardness (lbs):	2,170	
Volumetric Shrinkage:	0.56%	
Total Tangential Shrinkage (TS):	7.9%	
Total Radial Shrinkage (RS):	4.3%	
TS/RS Ratio:	1.8	
Fiber Saturation Point:	22%	
Stability: Poorly stable		

MECHANICAL/ACOUSTIC

	<u>Mean</u>
Crushing Strength*:	11,022 psi
Static Bending Strength*:	13,924 psi
Modulus of Elasticity*:	2,393,123 psi

*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 to 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:	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:	normal
Risk of Distortion:	slight risk
Risk of Casehardening:	no
Risk of Checking:	slight risk
Risk of Collapse:	no
Possible Drying Schedule:	5

M.C. (%)	Temperature (°F)		
	Dry-Bulb	Wet-Bulb	Air Humidity (%)
30	107.6	105.8	94
25	107.6	102.2	82
20	118.4	109.4	74
15	118.4	109.4	74

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:	

Risks of burning in machining. Slight tendency to tearing in planing (interlocked grain). Sawdust reported to be irritant.

ASSEMBLING

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

END-USES

Cabinetwork (High Class Furniture)
 Sliced Veneer
 Flooring
 Wood-ware
 Turned Goods
 Exterior Joinery
 Interior Joinery
 Interior Paneling
 Heavy Carpentry
 Musical instruments
 Tool Handles (Resilient Woods)
 Sculpture

MAIN LOCAL NAMES

Country	Local Name
Brazil	Aderno-Preto, Baracatiara, Goncaleiro, Goncalo-Alvez, Guaribu-Preto, Guarita, Mirueira, Muiracatiara, Sanguessugueira
Colombia	Gusanero
Ecuador	Guasango
Mexico	Palo De Culebra
Paraguay	Urunday-Para
Venezuela	Gateado