BARCINO

Cordia elaeagnoides DC., **family** Boraginaceae.

Geographic Distribution: Mexico, endemic to the Pacific slope (from Jalisco to Oaxaca and Chiapas, including the Balsas River basin).

Other Names: Bocote, cuéramo, ocotillo, ocotillo meco, bojote, getaña, grisiño, güeramo (MX).

CITES Protection Status: Not protected.

Background: Barcino is one of the most important commercial woods among the more than 200 species in this genus. A straight-trunked tree reaching up to 20 m in height and 30 cm in diameter at breast height. It is an endemic Mexican species of great ecological and economic importance. Its wood is among the hardest and heaviest in the genus and features very attractive color and grain patterns.

Wood Characteristics: Heartwood is brown with orange tints, darkening to deep brown over time when exposed; shows irregular light-colored bands randomly alternating. Abrupt transition to creamy white sapwood. Growth ring boundaries inconspicuous and may be confused with more pigmented bands. Pronounced grain with pleasant color contrasts. Medium to fine texture, straight to interlocked grain, dry wood with no distinctive odor.

Workability: Homogeneous and very hard wood that is difficult to work with hand tools and machinery. For best results, tools with tungsten carbide or stellite tips are recommended. Excellent behavior in mortising and molding, good drilling performance, may be somewhat difficult to glue. Pre-drilling is essential for nailing and screwing. The wood has a natural luster, requiring no additional finishing.

Drying: No bibliographic information was found regarding its drying behavior. However, due to its high density and partial blockage of vessels as main conduits for water and vapor movement, air-drying times are expected to be slow with some risk of cracking and warping. For technical drying, a mild program similar to those used for Mexican oak woods is recommended.

Natural Durability: Heartwood is resistant to moderately resistant to decay fungi (classes 2 and 3 according to ASTM D 2017-71).

Cross-section, approx. 12x magnification

Tangential (left) and radial (right) faces, natural size

Uses: Flooring (mosaic parquet); decorative sliced veneers, fine furniture, cabinetry, various craft items, turned and carved objects.

Physical properties		
Green weight [kg/m³]	850—1150	
Air-dry density (12-15% MC) [g/cm³]	0.83—0.94—1.15	
Shrinkage	Total*	Normal**
radial [%]	~ 5.0	~ 1.8
tangential [%]	~ 8.1	~ 3.3
Differential swelling [%/%]	radial: 0.25 tangential: 0.42	
Dimensional stability	good	
Mechanical properties		
Compressive strength (parallel, 12-15% MC) [N/mm²]	76—92	
Bending strength (12-15% MC) [N/mm²]	112—147	
Modulus of elasticity (bending, 12-15% MC) [N/mm²]	12000—16000	
Impact resistance (12-15% MC) [kJ/m²]	54—75—96	
Shear strength (12-15% MC) [N/mm²]	16—18	
JANKA hardness (side, 12-15% MC) [kN]	15—25	
BRINELL hardness (side, 12-15% MC) [N/mm²]	55—85	

*Green to dry (0% moisture); **Green to 12% moisture