KATALOX

Swartzia cubensis (Britton & P. Wilson) Standl., **family** Fabaceae-Caesalpinioideae

Geographic Distribution: Southeastern Mexico, Central America up to Costa Rica, Caribbean (Cuba).

Other Names: Churu cajc, corazón azul, kataloch, naranjillo, palo azul (MX); catalox, llora sangre (GT); carboncillo, costilla de danto, frijolón, kikir, melón, moridero, (CR); pico de gallo (CU), "bastard rosewood" (BZ, US), "Mexican ebony" (trade).

CITES Protection Status: Not protected.

Background: Katalox is part of the medium to tall sub-evergreen forests of the Yucatán Peninsula, Central America, and Cuba. Other species of the genus Swartzia are also reported throughout Central America up to northern South America, found in abundance in the Guianas and the Amazon area. The trees are medium-sized, reaching heights between 15 and 25 m and diameters at breast height of 40 to 70 cm. Its wood is heavy and hard with exceptional mechanical resistance properties. The species has become scarce and since 1997 has been on the IUCN (International Union for Conservation of Nature and Natural Resources) Red List of threatened species.

Wood Characteristics: Heartwood in green state is dark reddish-brown with a purple tint, darkening to nearly black-purple upon exposure; abrupt transition to yellowish-cream sapwood. Growth ring boundaries indistinct. It features a very attractive raised grain with alternating layers of different interspersed colors. Medium to fine texture, grain slightly to moderately interlocked. Odor of dry wood indistinct.

Workability: Despite its high density, the wood shows excellent behavior in planing, molding, and turning. Difficult to nail and screw, making it essential to pre-drill the wood before joining. Likely difficult to glue. Offers an excellent finish and high polish.

Warning: Contact with sawdust and particles generated during sanding may cause skin and mucous membrane irritation. As a preventive measure, the use of efficient extractors in all machining operations is recommended.

Drying: Air drying moderately difficult, showing warping and cracking. For conventional technical drying, the mild programs (US) T2-C2 for 1" and T2-C1 for 2" or the UK Program B (1"–1½") are recommended.

Cross-section, approx. 12x magnification

Tangential face, natural size

Natural Durability: Heartwood highly resistant to decay fungi (Class 1 according to ASTM D 2017-5) and termites. Susceptible to attack by marine borers.

Uses: Fine cabinets and furniture, molded products, cutlery, crafts and turned items. It has potential for the manufacture of mosaic-type parquet and prefabricated (laminated) flooring and decorative sliced veneers.

Physical Properties		
Green weight [kg/m³]	~ 1300	
Air-dry density (12-15% MC) [g/cm³]	0.98—1.12—1.29	
Shrinkage	Total*	Normal**
radial [%]	4.0—6.4	~ 2.7
tangential [%]	8.0—11	~ 5.0
Differential swelling [%/%]	radial: 0.35 tangential: 0.47	
Dimensional stability	fair	
Mechanical Properties		
Parallel compressive strength (12-15% MC) [N/mm²]	87—106	
Bending strength (12-15% MC) [N/mm²]	181—210	
Modulus of elasticity (bending, 12-15% MC) [N/mm²]	22800—25000	
Impact resistance (12-15% MC) [kJ/m²]	~104***	
Shear strength (12-15% MC) [N/mm²]	no data	
JANKA hardness (side, 12-15% MC) [kN]	15.0—16.4	
BRINELL hardness (side, 12-15% MC) [N/mm²]	55—58	

*Green to dry (0% moisture); **Green to 12% moisture; ***Value determined in green state.