

Mahonie Swietenia

Atibt

Mogno; NEN-EN 13556: American mahogany (GB), acajou d'Amérique (F), Amerikanisches Mahagoni (D), Code SWMC

Other names

1. Caoba, mahogany, mahagoni, mogno, mara, mahonia, acajou, baywood, Bolivia mahogany, Brazilian mahogany, Ecuador mahogany, Peru mahogany and Venezuelan mahogany, Aguano, mogno, araputanga (Peru), orura (Venezuela).
2. Honduras mahogany, Nicaragua mahogany, Tabasco mahogany, Mexican mahogany, chiculte, cobano, gateado, rosadillo, chacalte (Guatemala), zopilote (Mexico).
3. Cuban mahogany, San Domingo mahogany, caobilla (Cuba).

Botanic name

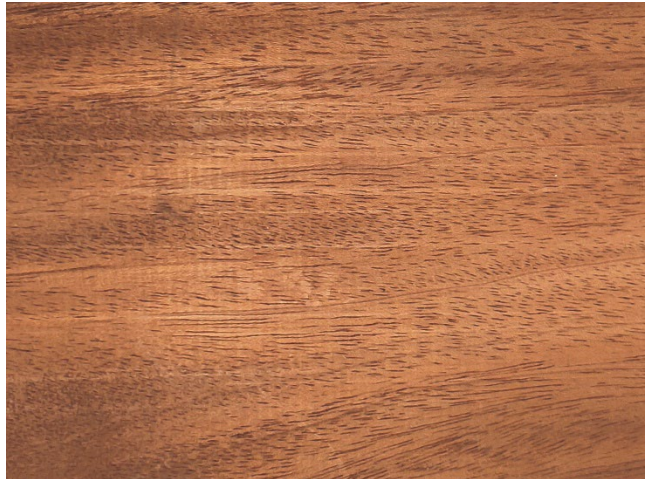
1. *Swietenia macrophylla* King.
2. *Swietenia humilis* Zucc..
3. *Swietenia mahagoni* (L.) Jacq..

Family

Meliaceae.

Growth area

1. Tropical South America, planted elsewhere in tropics.
2. Central America, Mexico.
3. Caribbean, planted in Africa and Asia.



Tree Description

Up to 30 m high and up to 2 m in diameter above heavy plank roots, branch-free trunk 18-24 m. Depending on soil and climatic conditions of the area from which the wood originates, the properties may vary slightly.

Supply

Sawn (edged) wood (formerly heartless sections of 100 cm, now 30 cm) and veneer. CITES timber species (all 3 tree species are on appendix II), making importation possible only with special permits.

Wood Description

Mahogany is a fine, solid, soft, tough, moderately strong wood. The heartwood is salmon-colored, pink, red to reddish-brown, fading to deep red or brown with a golden glow. Treated dry mahogany has a light pink color, under the influence of light this quickly changes to beautiful red-brown. The sapwood is white to yellow.

Wood Recognition

Reddish-brown in color, silky sheen, on copse face (marginal) parenchyma with no further conspicuous parenchyma, etage building on the sessile face. *Swietenia mahagoni* is distinguished from the African mahonies (kosipo, khaya, sapelli, sipo, tiama) by the relatively small vessels, only marginal parenchyma, etage building, odorless and relatively soft (especially compared to sipo, sapelli and kosipo).



Grain	Straight to slightly cross-threaded. Irregularities in the thread can result in
Texture	Fine to moderately coarse.
Voluminous mass	1. 540 kg/m ³ at 12% moisture content, fresh 700-800 kg/m ³ (moisture content approximately 55%). 2. 770 kg/m ³ at 12% moisture content.
Shrinkage	Wet to 12% moisture content: radially 1.2% and tangentially 1.8%.
Drying	Moderately fast, without much risk of cracking and deformation. A calibration line is available for making electrical wood moisture measurements.
Hardness	Longitudinal plane 3550 N.
Machinability	It can be worked well with hand tools as well as mechanically. Planing generally goes well, but sometimes gives a woolly surface so sharp cutting tools are necessary.
Nailing & Screwing	Moderately good, in moist conditions corrosion and black discoloration in contact with iron. Mahogany discolors gray in contact with iron and brown in contact with copper or brass.
Adhesives	Good.
Bend	Moderate.
Surface finish	Good. With polyester-based paints, film formation may be prevented and drying delay may occur.
Impregnability	Heartwood 4, sapwood 2-3 (according to NEN-EN 350).
Details	<i>Swietenia macrophylla</i> is lighter in weight and color and less beautifully marked than the other 2 species.
Applications	Furniture, interior carpentry, turnery and carving, knobs and handles, mouldings, for veneer and plywood manufacture. Exterior for windows, frames and doors and in shipbuilding (skin planking, paneling in yachts). For musical instruments (especially for the body and neck in electric guitars).
Strength class	Classified in D18 depending on origin and quality (see Table D).

Sustainability

Relative resistance to mold

Heartwood class 2 (NEN-EN 350: practical experience and field research).

Relative resistance to animal organisms

Heartwood: drywood borers D, termites S and marine borers S (NEN-EN: 350); sapwood: common woodworm M.