



Ipé

Atibt

Ipé; NEN-EN 13556: ipé (GB), ipé (F), Ipé (D), Code TBXX

Other names

Bethabara, pau d'arco, ipé, tauary (an objectionable name), caixeta (Brazil), guayacán polvillo (Colombia), guyacan, madera Negra (Ecuador), ebène vert, ébène jaune (French Guiana), bowwood, whalebone greenheart (Guyana), cortez (Honduras, Nicaragua, Costa Rica), amapa (Mexico), guayacán (Panama), lapacho negro, guayacán (Paraguay, Argentina), tahuari (Peru), greenheart (Suriname), flor amarillo (Venezuela).



Botanic name

Handroanthus guayacan (Seem.) S.O. Grose (= *Tabebuia guayacan*), *Handroanthus heptaphyllus* (Vell.) Mattos, (= *Tabebuia ipé*), *Handroanthus serratifolius* (Vahl) S.O. Grose (= *Tabebuia serratifolia*, *Tecoma ipé*), *Tabebuia cassinoides* (Lam.) DC..

Family

Bignoniaceae

Growth area

Tropical Central and South America.

Tree Description

Height 30-40(-65) m with a diameter of 0.6-0.9(-1.8) m. The branchless straight cylindrical trunks can be up to 8-40 m long and sometimes have rootlets at the base. The many tree species covered by this wood species and the wide distribution range are cause for a large variation in trunk size and wood properties.

Supply

Sawn lumber, parquet and floor lumber.

Wood Description

Surinam greenheart (*H. serratifolius*) is described below. The other *Tabebuia* species are somewhat lighter in weight, less strong but externally and anatomically hardly distinguishable from Surinamese greenheart. The greenish brown to greenish yellowish brown heartwood is clearly distinguishable from the yellowish gray 40-80 mm thick sapwood. The wood has a fairly even structure without pronounced markings. Nevertheless, the heartwood often shows light to dark areas that make it appear somewhat striped, and if crossgrain is present it also gives a decorative fine stripe pattern. It contains the constituent substance lapachol which is visible on the longitudinal surface as (green)yellow streaks. The wood is very hard and strong, difficult to split and very elastic.

Wood Recognition

Color dark brown with greenish tinge, often with color streaks, heavy, on head surface many small vessels, on the dosal surface rays in etage building. The similar demerara greenheart has no etage building, nor does it stain red with ammonia (or other alkalis), which is the case with ipé where the content substance lapachol is.



Grain	Straight, sometimes cross-threaded or irregular thread.
Texture	Fine .
Voluminous mass	(950-)1050(-1150) kg/m ³ at 12% moisture content, fresh 1200-1300 kg/m ³ . (Moisture content approximately 30%.)
Shrinkage	Radial 2,3% and tangential 3,2%.
Drying	Rather slow, low tendency to warp and crack. A calibration line for making electrical wood moisture measurements is not available.
Hardness	Longitudinal plane 13700-16700N.
Machinability	Due to its high voluminous mass difficult to machine and cutting tools stump quickly. When planing, small cutting angles are recommended to avoid cross-thread problems. It can be finished smoothly. Good dust extraction is recommended because wood dust containing lapachol (contains 0.4% derivative desoxylapachol) can lead to skin irritations or even eczema in sensitive individuals.
Nailing & Screwing	Pre-drilling required.
Adhesives	Given its high voluminous mass, it is probably not without problems.
Bend	Not known. Is very pliable though.
Surface finish	Good.
Impregnability	Heartwood 4, sapwood not known (according to NEN-EN 350).
Details	The bark contains ± 5% tannin. The wood contains a purple dye that dissolves in water and can cause bleeding. Wood from countries of origin other than Suriname is said to have higher shrinkage rates and is more likely to crack under adverse outdoor conditions.
Applications	Especially for construction work (bridge and shipbuilding and port work), sleepers, exterior and interior carpentry, parquet, flooring, furniture, turnery, carving, company floors, archery bows, wooden fishing rods, walking sticks, tool handles (replaces hickory or ash), garden wood, garden furniture, would be one of the best woods for spokes in wooden wheels in carriage construction. Widely used in Brazil in coachbuilding.
Quality requirements	Ipé is listed in NEN 5493.
Strength class	Classified as D40 & D50 depending on origin and quality (see Table D).



Sustainability

Relative resistance to mold

Heartwood class 1 (NEN-EN 350: practical experience and field investigation).

Relative resistance to animal organisms

Heartwood: drywood borers D, termites D and marine borers D (NEN-EN 350). Common woodworm and longhorn beetle, both D. There are sources that state that ipé is not resistant to pile worm.