

# CHAKTÉ-VIGA

**Botanical name:** *Caesalpinia* cf. *platyloba*, *Caesalpinia* sp., Family Fabaceae-Caesalpinioideae.

**Geographic distribution:** *Caesalpinia platyloba*: From Northwest Mexico to the Yucatán Peninsula and Central America (Guatemala).

**Other names:** Cascalote, chacteviga, coral, frijolillo, guayabón de playa, kiikche, palo colorado, teposcuahuitl (MX); paela (US).

**CITES protection status:** Not protected.

**Background:** The wood of *Caesalpinia platyloba* belongs to a group of similar-looking woods known as "brazilwood," whose main representative is *Caesalpinia echinata* from northeastern Brazil. In the North American market, Chakté-viga is commercially known as "paela," a wood highly valued for its beautiful color, grain, and good workability, primarily used for manufacturing guitars, jewelry, and crafts.

**Wood characteristics:** *Caesalpinia* cf. *platyloba*: Heartwood golden orange with abrupt transition to yellowish-cream sapwood.

*Caesalpinia* sp.: Heartwood light pinkish-brown, distinct from cream-colored sapwood. Growth ring boundaries macroscopically distinct, marked by very fine bands of marginal parenchyma. Grain from subtle to pronounced, fine to medium texture, interlocked grain. Dry wood with no distinctive odor.

| Physical Properties                             |                                  |          |
|---|----------------------------------|----------|
| Green weight [kg/m³]                            | 1247                             |          |
| Air-dry density (12% MC) [g/cm³]                | 0.92                             |          |
| Shrinkage<br>radial [%]<br>tangential [%]       | Total*                           | Normal** |
|   | 3.7                              | 1.1      |
|   | 7.6                              | 2.7      |
| Differential swelling [%/%]                     | radial: 0.22<br>tangential: 0.46 |          |
| Dimensional stability                           | fair                             |          |
| Mechanical Properties                           |                                  |          |
| Compressive strength (parallel, 12% MC) [N/mm²] | 80–87–93                         |          |
| Bending strength (12% MC) [N/mm²]               | 147–180–213                      |          |
| Modulus of elasticity (bending, 12% MC) [N/mm²] | 12911–15497–18083                |          |
| Impact resistance (11% MC) [kJ/m²]              | 97–114–131                       |          |
| Shear strength (12% MC) [N/mm²]                 | 16–17–19                         |          |
| JANKA hardness (side, 12% MC) [kN]              | 15–18–21                         |          |
| BRINELL hardness (side, 12% MC) [N/mm²]         | 54–62–71                         |          |

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

**Workability:** Very high-density wood, hard and heavy, yet good to work both manually and with all machining operations. Requires tools with tungsten carbide or stellite tips. Excellent behavior in mortising and molding, good in drilling, difficult to glue with common white glue. Allows smooth and shiny finishes. Pre-drilling is required for nailing and screwing.

**Drying:** Moderately permeable wood with fair dimensional stability; moderately fast air-drying, occasionally with residual internal stresses causing slight deformations when cutting with band or circular saws. According to its physical properties (density, dimensional stability, permeability), the wood requires mild programs such as G (UK) or T3-C2 (USA).

**Natural durability:** Heartwood very resistant (class 1 according to ASTM D 2017-71 and EN 350-1) to decay fungi, suitable for outdoor use in ground contact. Reputed to be termite-resistant.

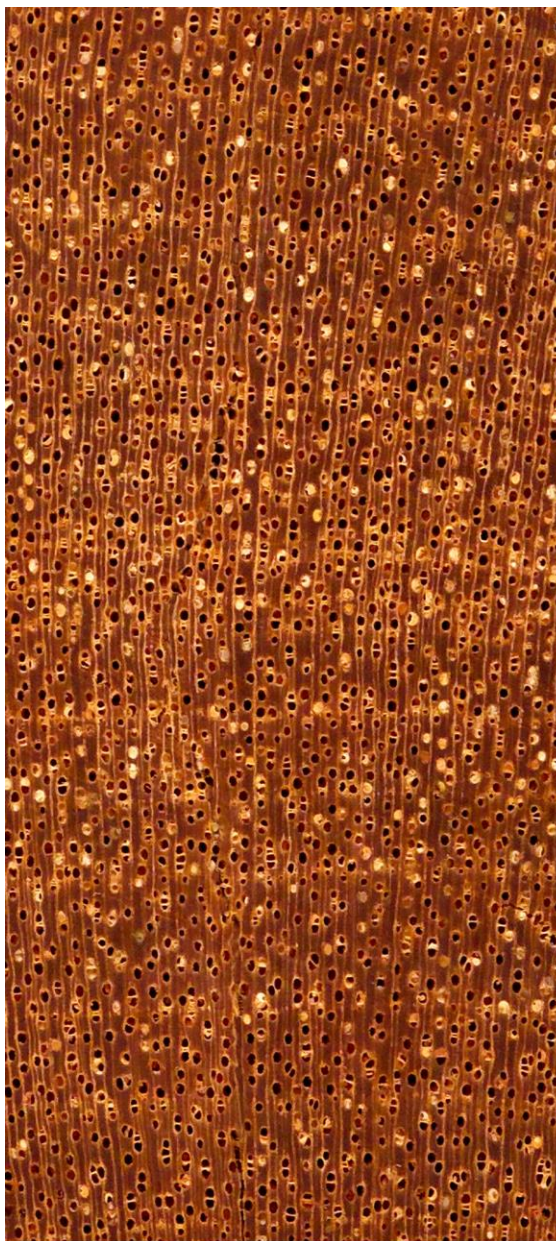
**Uses:** Jewelry, crafts, turned pieces, marquetry, fine furniture applications, engineered flooring, watch cases, urns, decorative sliced veneers.

## Bibliography

Consorcio Forestal Maderasudamerica 2011. Chakté-viga (*Caesalpinia platyloba*). Online publication (<http://www.maderasudamerica.com>), (October 2011).

Richter, H.G., Gembruch, K. & G. Koch 2005: *CITESwoodID* – Innovative medium for education, information and identification of CITES protected trade timbers. CD-ROM. Federal Agency for Nature Conservation (BfN) and Federal Research Centre for Forestry and Forest Products (BFH), self-published.

Savage Woods 2011. Chakté-viga (*Caesalpinia platyloba*). Online publication ([http://savagewoods.com/chakte\\_viga.html](http://savagewoods.com/chakte_viga.html)), (November 2011).



*Caesalpinia platyloba*: Cross-section  
(approx. 12x magnification)



*Caesalpinia platyloba*: Surface: radial  
face; natural size