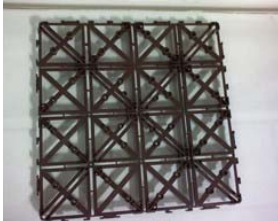




Technichal Data Sheet



Frames (Base):

Description:	Injected By Mold PP Virgin Material Frame For Deck Tile
Compatibility:	High
Temperature Change Resistance:	-20 C to + 60 C (Without change in properties)
Thermal Resistance:	< 90 C
Chemical Resistance:	Wide & Varied
Weight:	198 Gr.
Rigidity:	Shore D/15 ASTM D 224-03 = 64
Hardness:	Impact Izon 23 C ASTM D 256-03 = 35 J/m
Tension:	Elastic Limit ASTM 638-03 =30 MPa
Elasticity Dried At 2% ASTM D 790-03:	1130 MPa
Elongation At Elasticity Limit ASP 638-03:	6.6%



Lumber:



✓ IPE (Pronounced "Ee-pay") Tabebuia S.P.

General Characteristics: Ipe (also sometimes referred to as Patagonian or Brazilian Walnut) is a very dense Exotic Tropical Hardwood. With a beautiful olive-brown to blackish color and natural luster it appears as if just oiled. Heartwood olive brown to blackish, often with lighter or darker striping; sharply demarcated from the whitish or yellowish sapwood. Texture fine to medium; luster low

to medium; grain straight to very irregular; somewhat oily looking; no distinctive odor or taste.

Naturally resistant to fire, rated "Class A" by the NFPA (National Fire Protection Association) and "Class 1" by the UBC (Uniform Building Code).

Strength Properties: Timber average weight 72 lbs. per cubic foot. Bending strength is 28,000 PSI. Crushing Strength 13,000 psi. Dries rapidly, is a stable wood, movement in service is Low. Forest Products Laboratory toughness average for green and dry material is 404 in. – lb. (5/8-in. specimen). The species is much harder than the Oaks or Teak. It has exceptionally high bending strength qualities when air-dried. It has exceptionally high maximum crushing strength (compression parallel to grain) in the air-dry condition. It is a very hard wood, and requires special tools to mill and process. The weight is exceptionally high, even in the seasoned condition, much heavier than Oak or Teak.

Density, Hardness and Durability: Very High; natural resistance to attack by decay, fungi, insects and fire. The wood is reported to be extremely resistant to absorbing wood preservation agents, however, none are required to extend the life-term of the wood. Low maintenance, weathers to a silvery gray patina. An outdoor wood-oil may be applied periodically to maintain its original warm color.

Preservation: The wood is reported to be extremely resistant to absorbing wood preservation agents, however, none are required to extend the life-term of the wood. Low maintenance, weathers to a silvery gray patina. An outdoor wood-oil may be applied periodically to maintain its original warm color.

Janka Side Hardness: 3,680 lb. at 12% moisture content.

Uses: Railroad crossties, heavy construction, tool handles, industrial and commercial flooring, decks, decorative veneers



Ipe At Milling



Ipe Weathered Look



✓ Curupay - Anadenthera Colubrina spp.

General Characteristics: At milling is creamy to pale brown, darkening on exposure to reddish brown with darker colored, almost black, streaks; sapwood yellow brown or light pink. Texture fine and uniform; grain usually irregular and interlocked; no distinctive odor or taste. With an exquisite darker grain, Curupay is a beautiful, rich looking hardwood which is initially pale brown, darkening

on exposure and maturing to reddish brown with darker colored, almost black, streaks. (Similar in appearance to Tigerwood.). Naturally resistant to fire, rated "Class A" by the NFPA (National Fire Protection Association) and "Class 1" by the UBC (Uniform Building Code).

Strength Properties: Timber average weight 67 lbs. per cubic foot. Bending strength is 29,200 PSI. Crushing Strength 14,100 psi. Dries slowly, is a stable wood, movement in service is Low. Amsler toughness 680 in. - lb. (at 15% moisture content 2-cm specimen). The species is considered one of the strongest hardwoods. It has exceptionally high bending strength qualities when air-dried. It has exceptionally high maximum crushing strength (compression parallel to grain) in the air-dry condition. It is very hard, and requires special tools to mill and process. It is exceptionally heavy, weighing much more than the Oaks or Teak.

Density, Hardness and Durability: Very High; natural resistance to attack by decay, fungi, insects and fire. The wood is reported to be extremely resistant to absorbing wood preservation agents, however, none are required to extend the life-term of the wood. Low maintenance, weathers to a silvery gray patina. An outdoor wood-oil may be applied periodically to maintain its original warm color.

Preservation: The wood is reported to be extremely resistant to absorbing wood preservation agents, however, none are required to extend the life-term of the wood. Low maintenance, matures to a rich, dark reddish brown with black streaks. An outdoor wood-oil may be applied periodically to maintain its original or matured color.

Janka Side Hardness: 3,840 lb. at 12% moisture content.

Uses: Used for heavy exterior construction and marine work (structural beams, columns), decks, flooring, railroad crossties, tool handles, turnery/lathing, outdoor furniture, truck beds. The bark is extracted for its tannin.



Curupay At Milling



Curupay Weathered Look



✓ Grapia (Apuleia leiocarpa)

General Characteristics: Heartwood yellow-beige (honey) to yellow-brown (golden); sapwood slightly pink-brownish; uniform; white-yellowish. Texture is medium; grain is straight, fine interlocked; no distinctive odor or taste. Tree trunks are cylindrical lightly tortuous/twisted, fine bark. Grapia (sometimes referred to as a Patagonian or Brazilian Ash/Goldenwood) is another heavy and dense

Exotic Tropical Hardwood. With a fine interlocked grain, smooth surface, and light honey-yellow to warm golden-brown hues, it is an exotic hardwood that is quickly becoming a hot alternative for those who prefer a lighter, airy color and as a complimentary contrast to their darker hardwoods.

Strength Properties: Timber average weight 54 lbs. per cubic foot. Bending strength is 16,800 PSI. Crushing Strength 9,140 psi. Dries very slowly, is a stable wood, movement in service is Low. The species is a heavy, dense hardwood with average volumetric retractability and medium-high shock resistance. It is very scratch resistant and stronger than most decking materials.

Density, Hardness and Durability: Medium-High; natural resistance to attack by decay, fungi, insects and fire. High scratch resistance, the surface remains smooth for many years, making it an ideal wood for exterior decking and boat docks. Easier to mill and process with appropriate tools than some other hardwoods, due to the presence of silica, it lasts a very long time, 80+ years.

Preservation: The wood is reported to be extremely resistant to absorbing wood preservation agents, however, none are required to extend the life-term of the wood. Low maintenance, weathers to a silvery-blond patina. An outdoor wood-oil may be applied periodically to maintain its original honey/golden color and naturally glossy appearance.

Janka Side Hardness: 1,630 lb. at 12% moisture content.

Uses: Decks and marine docks, in Construction of external structures such as sleepers, posts, props, crosspieces; in Civil Construction as beams, stakes, door and window jambs, furniture, flooring, tool handles and in ship building.



Grapia At Milling



Grapia Weathered Look