TECHNICAL INFORMATION

GARAPA

Botanical name:
Apuleia leiocarpa

Commercial names:
Grapia, Garapeira, Amarelinho, Barajuba, Gema de ovo, Jataí-amarelo, Muorajuba, Muiratuá, Garapa-branca, Garapa-amarela, Barapibo, Cumarurama, Maratuá, Yvyra, Amascapi

Location:
A canopy of semi-deciduous forests from the Pará River to the Rio Grande and from southern Bahia to Espírito Santo in the Atlantic Rainforest. Distribution throughout the Amazon, Argentina, Brazil, Uruguay, Paraguay, Bolivia, Ecuador, Colombia, Venezuela and Peru.

General wood description:
The heartwood ranges from yellow, yellowish beige to light brown, gradually darkening to brown. The sapwood is yellowish white. In different angles of light it appears to go from a light shade to a dark colour. Uniform texture with a smooth surface and a slight natural sheen. High silicon content can cause faster tool dulling during processing.

NATURAL DURABILITY INDEX						
1	**2**	**3**	**4**	**5**	**6**	**7**
1 = VERY HIGH LIFESPAN						7 = LOW LIFESPAN

The heartwood has a medium resistance to wood-boring fungi.

Wood properties:

Density *(at W = 12 %)*	**820-880 kg/m³**
heavy to very heavy wood	
Suction in the radial direction	**4,2 %**
Suction in the tangential direction	**7,5 %**
Total volume aspiration	**11,4 %**
Medium shape changes, significant difference between tangential and radial suction	
Hardness of JANKA *(at W = 12 %, radial direction)*	**73,05 MPa**
Group	**MPa**
Soft	<40
Medium hard	≥40
Hard	≥80
Bending strength (perpendicular to the fibres tng. and rad.)	124,7 MPa
Compressive strength (fibre direction)	62,3 MPa

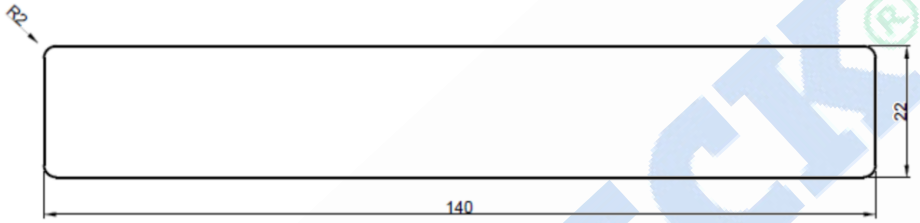
TECHNICAL INFORMATION

Terrace planks made of GARAPA wood

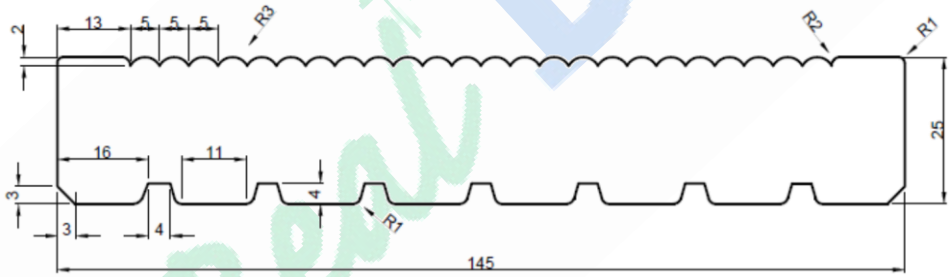
MEASUREMENTS (mm)	LENGTHS (m)	SORTING	DRYING	VIEW SIDE
22 x 140	2,1 – 5,7 *	A/B	16–18 %	smooth
25 x 15	2,1 – 5,7 *	A/B	16–18 %	fine groove, coarse groove

stock lengths are multiples of 30 cm = 2.1 m, 2.4 m, 2.7 m, 3 m, 3.3 m, 3.6 m, 3.9 m, 4.2 m, 4.5 m, 4.8 m, 5.1 m, 5.4 m, 5.7 m

GARAPA 22 x 140 mm – profile detail



GARAPA 25 x 145 mm – profile detail

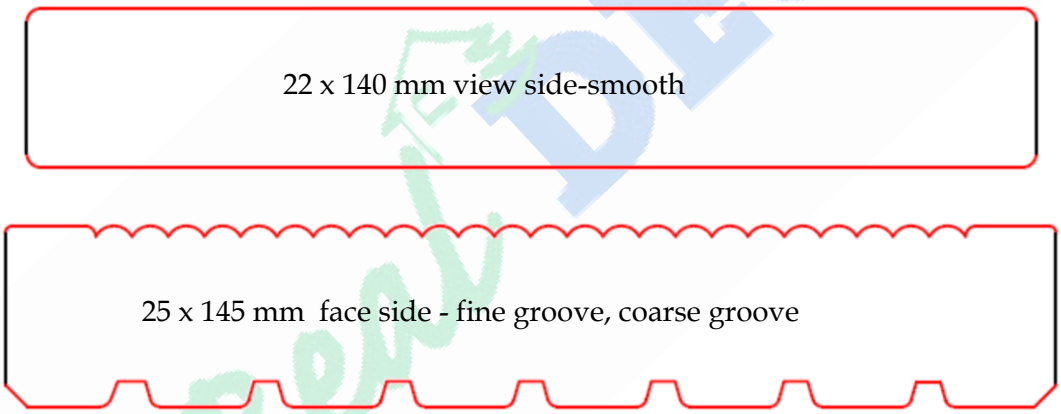


Sorting:

Terrace boards made of GARAPA wood are supplied in A/B grading in a 60:40 ratio. In practice, this means that sixty percent of the material delivered at the time of delivery has no defects on the face of the patio boards and, in general, the part can be divided into a maximum of two usable parts during assembly. The remaining forty percent of the supply may show fine surface cracks and end cracks, but these must not run through the entire thickness of the plank, but up to a maximum of 1/3 of the length of the decking. An end crack is permitted for a maximum length of one terrace plank width. Healthy overgrown females without restrictions, possibility of local insect holes *(only larval passages Ø 1-2 mm, insects did not survive artificial drying and insecticidal treatment before transport).* Permitted occurrence of pitcher plants.

Drying:
Wood is a hygroscopic material that changes its moisture content according to its surroundings through adsorption, in an attempt to reach a state of moisture equilibrium. Terrace boards made of Garapa wood are artificially dried to a moisture content of 16-18%, which minimizes the risk of undesirable shape changes and significantly increases its mechanical properties with greatly improved resistance to bio attack. Shape changes caused by slumping and swelling can not be completely prevented. As a result of the anisotropic nature of slumping and swelling with the simultaneous formation of internal stresses in the wood, transverse and longitudinal buckling and the formation of drying cracks can occur.

View side:
Each terrace board profile has a predefined face to which the grading applies. The use of any other side as a view side is not allowed. The view side must be specified when ordering.



Plank deflections and expansion joints:
Due to the hygroscopicity and anisotropy of the wood, there can always be a slight deformation of the terrace boards in the longitudinal direction (curvature). These shape changes are not a defect in the material and do not prevent the installation of the terrace boards. To minimize the formation of shape changes, it is necessary to store the material tightly jointed until the time of installation. For easier assembly of curved planks, it is possible to use clamps designed for this purpose. Because of the swelling and shrinking of wood due to weathering, it is necessary to leave a minimum of 8 mm of expansion between the individual terrace boards. The dimension of the expansion joint will change throughout the year as the dimensions of the terrace board change due to weather changes. The main function of the expansion joint is the free movement of the terrace boards without the risk of damage.

TECHNICAL INFORMATION

Spectrum of colours:
Garapa wood decking boards are not subject to colour grading. The colour spectrum ranges from the light white-yellow of sapwood, through the yellow-brown, golden to brown colour of heartwood. Over time, the wood gradually darkens. Within the significant heterogeneity, lighter and darker bands can be seen in the radial and tangential directions under changing light conditions.

Contains:
Exotic Garapa wood is very rich in tannins *(extractives).* TThese substances can be leached from the wood during exposure to the weather and cause colour stains on the surface of the wood and surrounding structures *(in spite of the light colour of the Garapa wood, the contained substances range in colour from green to black).* When installing, care must be taken to ensure rainwater drainage and structural protection.

Graying of the wood:
From the moment the terrace boards are exposed to the weather, they are degraded by the action of so-called inanimate nature. Due to the interaction of several influences (water, radiation, flow, temperature changes, smog, emissions, etc.), lignin is decomposed in the first phase by photochemical reactions. This decomposition does not cause any observable darkening of the wood under outdoor conditions, because the disturbed lignin is subsequently washed away by rainwater, producing a lighter shade due to the light colour of the unremoved cellulose. In practice, however, the light shade is disturbed by the deposition of dust particles and impurities from the air into the porous structure of the wood surface, or by the co-growth of microscopic fungi, resulting in the well-known greying of the wood.

Choice of fasteners:
Garapa timber decking boards are moderately stable and can be installed with both a visible connection and an invisible anchoring system. Only material that does not cause a chemical reaction with the wood must always be used to prevent deterioration. This involves the use of steel grade at least A4 for visible bolted connections, or composite materials meeting the strength requirements for EURO Tec invisible anchoring.

TERRACE BOARD	STEEL CLASS	DIMENSION OF THE TURN	INVISIBLE ANCHORING
GARAPA 22 x 140 mm	A4	5 x 55 mm	YES
GARAPA 25 x 145 mm	A4	5 x 60 mm	YES

Real DECK®
TECHNICAL INFORMATION

Substructure:
The installation of the terrace planks can only be carried out on a substructure made of wood of the same or higher biological resistance with a minimum profile of 45 x 70 mm *(exotic wood Jarana, Bangkirai)*. The minimum axial spacing of the substructure for individual thicknesses of terrace planks is governed by the following table:

TERRACE BOARD	MAXIMUM AXIAL SPACING OF THE UNDERLYING PRISMS
GARAPA 22 x 140 mm	440 mm
GARAPA 25 x 145 mm	500 mm

Note.: *The terrace boards can also be mounted on EURO Tec aluminium profiles, which are approved for Real DECK terrace boards.*

Surface treatment
In order to increase protection against biotic and abiotic degradation, a terrace made of Garapa wood should be coated with one of OSMO's pigmented terrace oils *(colorless coating is not recommended)*. The application is carried out at the earliest three months after exposure to the weather in order to allow the leaching of the contained substances and the penetration of the paint into the pores of the wood. In order to maintain the best possible hydrophobic properties, it is advisable to carry out the renovation coating at an interval of about six months. To reduce the risk of face cracking, it is recommended that all transverse cuts are coated with OSMO 5735 cutting edge wax.

Note:
The Technical Data Sheet serves as a supplement to the "Technical and Warranty Conditions of Real DECK"

Au-Mex ltd.
all about wood

ZARUČENÁ Real DECK KVALITA

Au-Mex ltd., Podebradska 574/40, 198 00 Prague 9 – Vysocany,
www.realdeck.cz, info@realdeck.cz