

*karuun®* is a natural material obtained from the rattan palm which is produced using a highly energy-efficient manufacturing process.

*karuun® block* has unique properties. Diagonal or free-form cuts expose the coloured or untreated capillary structure, redefining the workpiece as a celebrated design artefact.

Unique striped patterns of any colour can be incorporated into the material using our patented technique. The aesthetic grace achieved through this modification presents entirely new design possibilities. *karuun® block* is available in different

colours, qualities and designs and is produced with a formaldehyde-free adhesive. *karuun® block* can be processed without causing splintering or exposing knots.

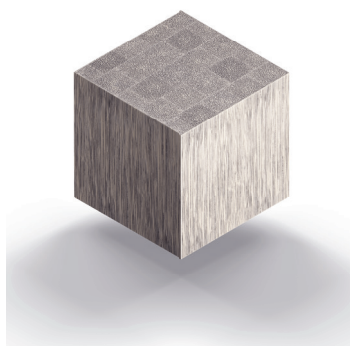
## How to use

*karuun® block* can be processed with any cutting tools; when milled or turned at different angles, its unique properties come into their own.

When glueing the material for the first time, we recommend you perform some tests to find the right balance between pressing time, temperature and pressure.

*karuun® block* is a semifinished product, therefore its lightfastness partly depends on the composition of the finished product. For optimal results, we recommend testing the product in advance based on the specific purpose and intended use.

## Product Specifications



**Thickness:** ~ 170 - 185mm (custom sizes on request)

**Dimensions:** ~ 2,550 × 330 - 350mm (custom sizes upon request)

**Design:** various qualities and colors available, untreated

**400** kg/m<sup>3</sup>

Density (product)  
+/-

**10** %

Moisture content  
at 20°C / 65% relative humidity

**0.048** %

Differential shrinkage (V)  
longitudinal  
per % changes of moisture

**0.15** %

Differential shrinkage (V)  
radial / tangential  
per % changes of moisture

**2.3** N/mm<sup>2</sup>

Compression (fc,90,k)  
Rectangular to the grain

**12** N/mm<sup>2</sup>

Compression (fc,0,k)  
Face grain direction

All dimensions are approximate. *karuun®* is a natural material therefore slight variations in color and dimension cannot be ruled out.



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## Processing guidelines

**Storage:** Store *karuun*® materials covered in a dry place protected from dust and UV rays

**Suitable adhesives:** Common adhesives such as PVAC, PU, UF, MF or adhesive films if necessary

### General tips:

- Avoid crushing the material at individual points
- Over-exposure to heat can lead to discolourations and make the material brittle

#### Suitable tools:

- Standard woodworking saws and sanding machines CNC milling machines for wood.

#### Preparation:

- Ideal wood moisture for processing: 8 – 11 %
- Cut material to size.

#### Milling:

- Be aware of the direction of the milling head rotation relative to the fibre orientation
- Perform a preliminary milling test
- Very sharp milling tools are required to prevent fibres forming.

#### Sanding:

- Use 180–300 grit sandpaper
- Hand sanding (e.g. with an orbit sander)
- Sanding at an angle to the grain is recommended
- Sand protruding fibres across the grain do not pull off
- To bring out the structure, brush the surface as necessary and sand again
- Blow any residue off the surface with compressed air once sanding is complete.

#### Finishing:

- Surface must be dry, free of dust and grease
- The finishing process should be performed immediately after sanding
- Suitable products: varnishes, hard oils and hard waxes
- Environmentally friendly, acrylic resin-based water varnishes recommended
- The product you use shouldn't intensify the material (i.e. cause a yellow tinge)
- The final hardness of the product you use should also bond the fibres

#### Processing order:

1. first application is the priming coat (see "Suitable products" above)
  2. after curing comes intermediate sanding (e.g. 240 grit – orbit sander)
  3. blast surface with air
  4. 1–2 top coats of the product (see "Suitable products" above)
- Application rate varies according to field of application and product used
  - A fine, intermediate sanding after each application is recommended.

#### General instructions:

- Avoid crushing the material at individual points
- Over-exposure to heat can lead to discolourations and cause the material to become brittle.

#### Lightfastness:

- karuun*® stripe can be varnished using any product or method which is suitable for treating natural materials. However, of all the products available those with the following characteristics yield the best results:
- High wetting power
  - High yellowing resistance
  - High UV protection.



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