

## Technical Data Sheet maridur® 45

### Description

maridur® 45 is a premium and easily machinable plastic with the following properties:

- Fine cell structure
- Very good machinability by hand and machine
- Excellent paintability
- No swelling
- Easy to coat

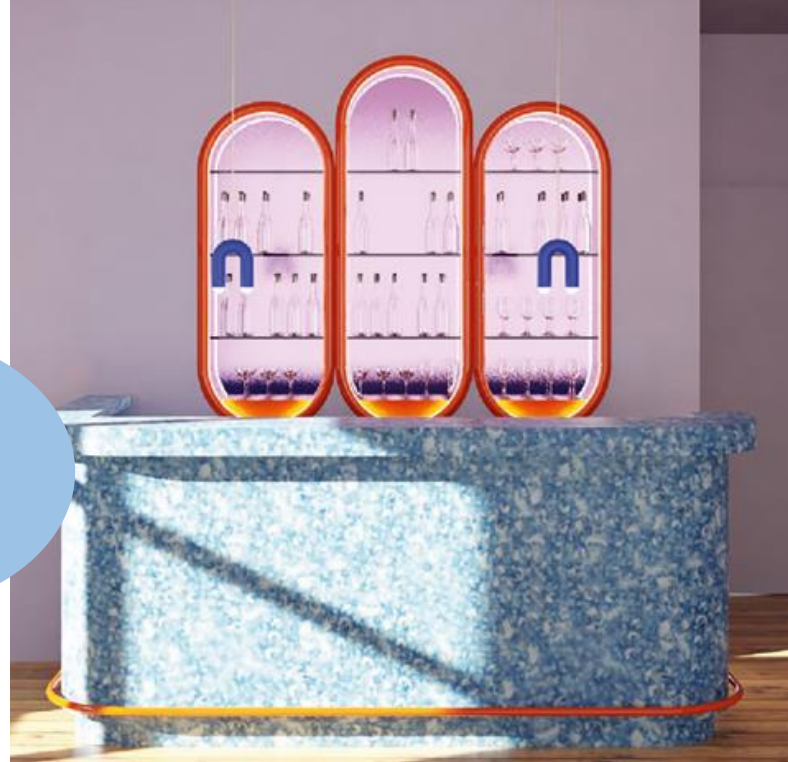
Possible dimensions:

- 1500 x 500 x 4 - 200 mm
- 2000 x 1000 x 4 - 100 mm

Other dimensions on request!

### Application

- Interior constructions
- Bathroom area
- Facades
- Front doors



### Technical Data

Density approx. <b>kg/m<sup>3</sup></b>	470
Compressive strength (DIN EN ISO 604) approx. <b>MPa</b>	13 - 15
Bending strength (DIN EN ISO 178) approx. <b>MPa</b>	14 - 16
Linear thermal expansion coefficient temperature from approx. 25 up to 70 °C according to DIN 53752) <b>10<sup>-6</sup> · K<sup>-1</sup></b>	50 - 55
<b>Shore-D</b> (DIN 53505)	45 - 59
Deflection temperature <b>°C</b>	80 - 85
Bend modulus of elasticity (DIN ISO 178) <b>MPa</b>	500 - 650



## Adhesive



### Surface pretreatment

- Sand all surfaces (max. 80 grid)
- The surface to be glued must be clean, dry and dust-free. Blow over with compressed air or vacuum clean.
- The surfaces to be bonded should be cleaned from oil, fat, dust or dirt residues using suitable solvents. Suitable solvents are such which evaporate without residue in order to achieve a maximum adhesive power, e.g. acetone or isopropanol.
- The adhesive is applied on both surfaces with a notched resin spreader.
- Now the components are assembled.
- Secure the components with sufficient clamps or presses
- Laterally leaking glue should be smoothed or removed with a notched resin spreader

### Disclaimer

All information about the material and the processing is given to the best of our knowledge and should not be viewed as a guarantee of the properties of the material.

### Recommendation

For parts that still need to be painted, we recommend our AMPRO™ adhesive. For simple bonding you can use our OBO-bond brown.

	OBO-bond brown PU-Adhesive		
Colour	brown		
	OBO-bond Resin	OBO-bond 50 Hardener	
Mixing ratio by proportion of weight A : B	100	50	
Pot life 150 g / 20 °C	15 – 20 minutes		
	AMPRO™ EP-Adhesive		
Colour	Yellowish clear liquid pale		white
	AMPRO™ Resin	AMPRO™ slow hardener	AMPRO™ Silica filler
Mixing ratio by proportion of weight A : B	100	29	
Topfzeit 150 g / 20 °C	80 minutes		variable*

\* The viscosity can be variably regulated by mixing with filler.





## Processing instructions

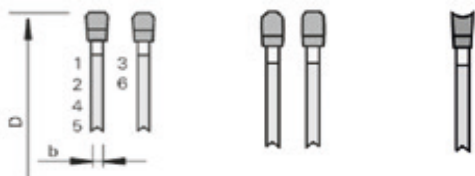
### Cutting / Formatting

Panel cutting with circular saw blades

Various factors are responsible for good cutting results:

Decorative side face up, correct saw blade projection, feed of speed, tooth profile, tooth pitch, rpm and speed.

Tooth configurations:



### Milling / edge processing

In general, tools with carbide-tipped and diamond-tipped blades should be used for jointing work in the continuous process.

For formatting with jointing cutters, very good results can be achieved with tools that have a small shaft angle.

For diamond-tipped tools, a shaft angle of 35° and for cutter head with carbide tipped turnover board knives, a shaft angle of 15° is suitable. The ideal feed per tooth (fz) is between 0.7 – 0.75 mm.

### Cutting speed

The recommended cutting speed is 70 - 90 m/sec. The higher value should be selected in case of polycrystalline diamond tipped circular saw blades. Try to aim for a feed per tooth of 0.06 – 0.07 mm.



SmartJointer airFace



DIAMAX airFace

## Processing instructions

### Processing on CNC machines

Separating cuts, jointing cuts, pocket milling etc. can be performed easily with common shank-type cutters.

The right choice depends on the requirements regarding the desired cutting quality. As solid carbide shank type cutters are provided with continuous cutting edges, they are ideal to use.

Absolutely smooth cuts can be achieved using solid carbide shank type cutters with continuous cutting edges with spiral and turnover board knives. Also diamond-tipped tools with a small shaft angle work very well.

### Connections and fittings

Furniture parts can be connected with dowels, flat dowels, tongue and groove etc. The installation and fastening of fittings is no problem. maridur® can be drilled, sanded and screwed similar to wood.



### Manually processing

maridur® can be processed in a similar way to wooden materials, therefore it can be done with all common carpentry machines.

