ebaboard EP 138 EF

Technical Datasheet

Epoxy board

Applications

Prepreg tooling
Master models for prepreg tools
Moulds and tools for composites
vacuum forming tools

Properties

machined on all sides	
coefficient of linear expansion	36 x 10^{-6} 1 / K
heat resistance	145 °C
fine structure	

Processing data

Product		ebaboard EP 138 EF
Colour		light blue
Density at 20 °C	g/cm³	0,68 ± 0,02

Physical data

Properties	**Inspect. Requirements**	**Unit**	**Value**
Flexural strength	EN ISO 178*	MPa	36 ± 4
Flexural modulus	EN ISO 178*	MPa	2100 ± 100
Tensile strength	EN ISO 527*	MPa	27 ± 4
Tensile modulus	EN ISO 527*	MPa	2330 ± 100
Compressive strength	EN 604*	MPa	53 ± 4
Impact resistance (Charpy)	EN ISO 179*	kJ/m²	2,75 ± 0,25
Heat deflection temperature HDT	DIN EN ISO 75-1*	°C	145 ± 3
Glass transition TG	DSC	°C	138
Coefficient of linear expansion 20 - 50 °C	Internal audit/Dilatometer	$10^{-6}K^{-1}$	~ 36
Shore hardness	DIN ISO 48-4*	Shore D	69 ± 3

* based on

Sales units (packages)

ebaboard EP 138 blau 1524 x 609 x 50 mm
ebaboard EP 138 blau 1524 x 609 x 75 mm
ebaboard EP 138 blau 1524 x 609 x 100 mm
ebaboard EP 138 blue 1524 x 609 x 150 mm
additional products
ebafix 552 resin, yellow transparent, 0,877 kg tin
ebafix 552 hardener, yellow transparent, 0,123 kg tin
ebafix 552 resin yellow transparent, 4.386 kg bucket
ebafix 552 hardener yellow transparent 0.614 kg bottle
Sealer 02 1,000 l Flasche
Sealer 09, 1.000 l
Release Agent 17 colourless 1 ltr. bottle

Processing instructions

Before processing, the material should be conditioned to a temperature of 18–25°C.

ebaboard can be machined using all standard wood and metalworking tools. High-quality, sharp tools should be used.

Recommended milling parameters can be found on our website: www.ebalta.com

• For bonding and repairs, we recommend our ebafix 552

After curing for approximately 12–16 hours at room temperature, the blocks must be heated step-by-step in the oven to post-cure the adhesive and then held for about 10 hours at a minimum temperature of approximately 80 °C. For higher temperature resistance, apply a correspondingly higher
post-cure temperature.
With a heat treatment of 5 hours at 140 °C, adhesive 552 achieves an HDT of approximately 145 °C.

We recommend heating and cooling rates of a maximum of 5 °C per hour. For every 100 mm of model thickness, keep the blocks in the oven for approximately 1 hour longer at the maximum temperature. After cooling, the block should ideally remain in the switched-off, closed autoclave overnight
until it has reached room temperature throughout the core as well.

When removing the block, do not place it on a cold surface
if necessary, place an insulating layer underneath.

For prepreg curing cycles, use similar heating and cooling ramps. Depending on the geometry and wall thickness of the tool, different parameters may be required.

Sealing: Sealer 02 oder Sealer 09
Release: Trennmittel 17

General

ebaboard EP is a postcured board material based on epoxy. It has an even structure and plane parallel machined surfaces

ebaboard EP is available in fixed sizes.

Storing

The material should be stored on a level, dry surface.
Significant temperature fluctuations during storage and transport should be avoided

Safety measure

Please follow the precaution instructions of the Government Safety Organisation of the chemical industry when working with this material.

Please refer to the respective safety data sheets

Waste Disposal

Small quantities can be disposed of in commercial waste.

For larger quantities, this should be coordinated with the relevant authorities.

For further questions, our product safety department is at your disposal

Compliance & Legal

The information and recommendations provided are based on careful evaluation and practical experience. They reflect the state of our knowledge at the time of provision. Updates may be made without notice.
The information is intended as general guidance and does not constitute a warranty of specific characteristics or properties of the product. Due to the wide range of potential applications and processing methods, not all individual use cases can be covered.
The product must be used in accordance with the applicable safety and usage instructions. No liability will be accepted for improper use or application outside the intended purpose.
Unless otherwise agreed, it is the responsibility of the user to independently assess the suitability of the product for the intended application and processing method.

The information provided does not release the user from the obligation to seek individual advice in cases of uncertainty regarding specific applications.
Statutory warranty rights remain unaffected.