## Machinable Tooling Resins ebaboard ebablock® ebazell Lay-up paste Perfect in any shape

Polyurethane and Epoxy Resins Boards and Blocks Silicones Auxiliaries



## ebalta: Your competent partner for tooling resins.



More than 20.000 square meters premises at our location Rothenburg ob der Tauber, Germany.

For more than 40 years ebalta has been a leading manufacturer of polyurethane and epoxy resins for mould and tool making, design and foundry model making for composites, rapid prototyping and electrical encapsulation. Solutions from ebalta worldwide for automotive, aircraft industry, machine construction, rail vehicles, medical technology et cetera. That's what 130 employees and the company's proprietors stand for!

Our versatile product range includes:

- $\blacksquare$  epoxy and polyurethane boards in different thicknesses
- cast-to-shape blocks for seamless models
- epoxy and polyurethane resins, all purpose and laminating resins, gel coats, lay-up pastes, RIM and vacuum resins or resins for electrical encapsulation
- silicones, auxiliaries, accessories and services



"Our customers are the focus of our activities. We see ourselves as a competent partner with solutions for your tasks".

ANDRE NEUTZLER Managing Director

### Why you simply can't get past us? Our assets, your benefits in the market.

#### Product variety and quality Suitable solutions for your requirements

- more than 2,000 items
- powerful and easy-to-use product range
- research and development team for your individual requirements
- our target: to meet your requirements 100%

#### Advice and competence – worldwide Know-how on-site worldwide

- complete team of experts with practical experiences and best know-how
- regional field workers for assistance on-site
- support at each step of your projects and according to your individual requirements
- worldwide solutions from our competent distributors

#### Deliveries

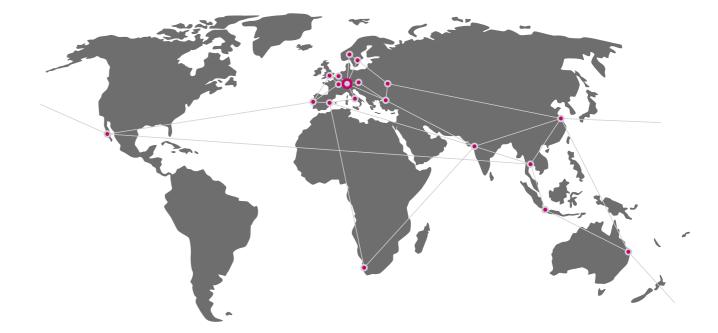
#### Prompt execution of your orders

- our benchmark: fast delivery for your step ahead
- of the competitor
- 24 hours delivery in Germany
- 6-7 working days for individual blocks and for boards in special sizes
- our network of international partners guarantees prompt delivery worldwide

#### ebalta –services

#### to make your projects efficient and economic

- CAD-data processing and mould making for fabrication of individual blocks
- Application of ebalta lay-up paste on-site with our in-house
- Customer training in-house ebalta or on-site, e.g. for composites vacuum infusion







#### Board material – ebaboard and ebazell The fast solution

Complete product range for your versatile applications:

- ebazell foam boards
- ebaboard epoxy and polyurethane boards
- including adhesives, repair and casting resins

From base constructions for design models to high abrasion resistant tools: we have the suitable solution:

- density 0.08 g/cm³-1.86 g/cm³
- dispatch on day of order for standard boards
- Special sizes on request

# Design model made of ebaboard 0700



ebablock® The individual solution

The alternative ebablock®:

- individual cast-to-shape block
- for big models and moulds with complex geometries
- density 0.8 g/cm³-1.86 g/cm³

#### Your benefits at first view:

- material savings due to low material allowance
- short milling time
- no joints
- short processing time: no gluing required

#### Lay-up paste The lightweight with perfect surface-solution

Design models for automotive or moulds for wind turbines and hulls are special challenges.

#### We recommend:

- epoxy lay-up paste, density 0.75 g/cm³
- application on-site or in ebalta with our in-house machine

#### Saving of weight and costs by:

- light and flexible back filling
- material savings by close contour application



Prepreg tool for racing seat made of ebaboard EP 138



Core box for gearbox housing made of ebaboard PW 920



Pattern made of ebaboard 1220



RIM-tool for passenger car cover panel made of ebaboard 1400

Original size design model of a car side panel made of lay-up paste P 26

	Colour	Properties	Applications	Density [g/cm³]	Linear thermal expansion coefficient [10°K] 20-50°C	Temperature resistance Martens [°C]	Available sizes [mm]	Adhesive, repair putty and casting resins
ebaboard L-2	apricot	very fine structure, good edge stability, good compressive strength	master models, design models, laminating tools	0.45	approx. 65	67 ± 2	1500 x 500 x 50 / 75 / 100 / 200	Adhesive apricot
ebaboard 0600	brown	dense surface, fine structure, very easy to work	master models, design models, foundry patterns	0.60	approx. 59	73 ± 5	1500 x 500 x 30 / 50 / 75 / 100 / 150 / 200	Adhesive and repair putty brown
ebaboard 0700	brown	very fine structure, dense surface, very easy to work	master models, foundry patterns, design models	0.70	approx. 49	78 ± 3	1500 x 500 x 50 / 75 / 100 / 200	Adhesive and repair putty brown
ebaboard EP 138 ebablock® EP 138	light blue	low coefficient of thermal expansion, very high heat resistance	tools for prepregs, master model for prepreg-tools	0.68	approx. 36	145 ± 3	1524 x 609 x 50 / 75 / 100 ebablock®: individual dimensions	Adhesive 552
ebaboard 0780	turquoise	very fine structure, high strength values, good edge strength	Master models, foundry patterns, laminating tools	0.78	approx. 63	86 ± 1	1500 x 500 x 50 / 75 / 100	Adhesive, repair putty and casting resins green
ebablock® M 007	brown	dense surface, fine structure, very easy to work	cubing models, master models, design models	0.82	approx. 67	68 ± 2	ebablock®: individual dimensions	Adhesive and repair putty brown
ebaboard 1050 ebablock® 1050	light grey	easy to work, fine structure	foundry patterns, core boxes, jigs	1.05	approx. 60	98 ± 3	1000 x 500 x 50 / 75 / 100, special sizes on request ebablock®: individual dimensions	Adhesive and repair putty light grey
ebaboard 1204 ebablock® 1204	yellow	high abrasion resistance, very good edge strength, very shock resistant, very dense surface, easy to work	Core boxes, Founry patterns, Pattern plates	1,20	approx. 77	87 ± 3	1000 x 500 x 50 / 75 / 100, special sizes on request ebablock®: individual dimensions	Adhesive, repair putty and casting resins yellow
ebaboard 1220 ebablock® 1220	orange	high abrasion resistance, dimensionally accurate	foundry patterns, core boxes pattern plates	1.21	approx. 73	82 ± 4	1000 x 500 x 50 / 75 / 100, special sizes on request ebablock®: individual dimensions	Adhesive and repair putty orange
ebaboard PW 920 ebablock® 920	green	high quality surface, abrasion resistant, good edge strength	foundry patterns, core boxes, pattern plates	1.22	approx. 87	80 ± 3	1000 x 500 x 50 / 75 / 100, special sizes on request ebablock®: individual dimensions	Adhesive, repair putty and casting resins green
ebaboard 1200	beige	low coefficient of linear expansion, good edge strength, high quality surface	gauges, fixtures, moulding tools	1.25	approx. 54	97 ± 3	1000 x 500 x 50 / 75 / 100, special sizes on request	Adhesive and repair putty beige
ebablock® K 08	salmon pink	very high abrasion resistance, very shock resistant, dense surface	core boxes	1.35	approx. 150	-	ebablock®: individual dimensions	Adhesive for ebablock® K 08
ebaboard 1400 ebablock® 1400	blue	low coefficient of linear expansion, abrasion resistance, fine structure	foundry patterns, core boxes, pattern plates	1.38	approx. 69	87 ± 2	1000 x 500 x 50 / 75 / 100, special sizes on request ebablock®: individual dimensions	Adhesive, repair putty and casting blue
ebaboard 1700	grey	good heat resistance, low coefficient of linear expansion	jigs, moulding tools, vacuum forming tools	1.70	approx. 45	85 ± 2	1000 x 500 x 50 / 75 / 100, special sizes on request	Adhesive and repair putty grey
ebaboard 1750	beige	low coefficient of linear expansion, good edge strength	jigs, moulding tools	1.75	approx. 43	90 ± 3	1000 x 500 x 50 / 75 / 100, special sizes on request	Adhesive beige
ebaboard W ebablock® W	grey	high strength, wear resistant, low coefficient of linear expansion	sheet metal forming, vacuum forming tools, hammer form tools, jigs, mould constructions	1.76	approx. 50	76 ± 2	1000 x 500 x 50 / 75 / 100, special sizes on request ebablock®: individual dimensions	Adhesive and repair putty grey
ebablock® 1820	beige	low coefficient of linear expansion, high heat resistance	foundry patterns, jigs, mould constructions	1.82	approx. 53	90 ± 5	ebablock®: individual dimensions	Adhesive and repair putty beige
ebablock® P 185	blue	low coefficient of linear expansion, high heat resistance	master models for prepreg- and nickel shell tools	1.86	approx. 39	115 ± 5	ebablock®: individual dimensions	Putty P 185 blue
ebazell 80	light beige	fine structure, very easy to work	styling models, master models, design models	0.08	approx. 50	-	2000 x 1250 x 50 / 100 / 150 / 200 / 300 / 400 special sizes on request	Adhesive for ebazell
ebazell 160	light green	very fine structure, very easy to work	master models, design models, arts and crafts	0.16	approx. 50	-	2000 x 1000 x 100 / 150 / 200 / 300 / 400 special sizes on request	Adhesive for ebazell
ebazell 260	light grey	very fine structure, very easy to work, dimensionally stable	master models, design models, arts and crafts	0.25	approx. 50	-	2000 x 1000 x 50 / 100 / 150 / 200 special sizes on request	Adhesive for ebazell

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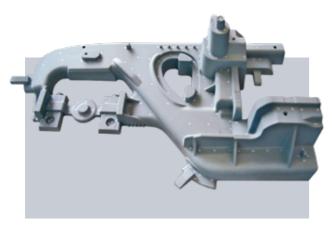
#### Complex geometries require new ideas. ebablock® - the individual cast-to-shape solution.

Innovation by ebalta: ebablock® cast-to-shape contour block for seamless models, moulds and tools. Your CAD data's serve for the fabrication of styrene or polyurethane foam negatives according to the shape of your parts. Considering offset and shrinkage in our calculations you get a high-quality seamless ebablock® with low offset.

This way you save time, capacity and material for later machining. Our product range includes blocks with low density from 0.8 g/cm³ for design model making to 1.85 g/cm³ for all kind of mould and tool making. ebablock® is available as an individual cast-to-size block, as well as a series production block with your customised geometry.



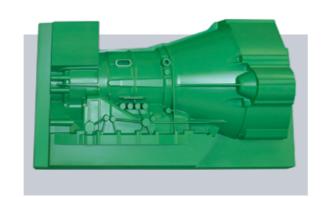
Design model for a car wing made of ebablock® M 007



Pattern for a chassis train axis made of ebablock® 1050

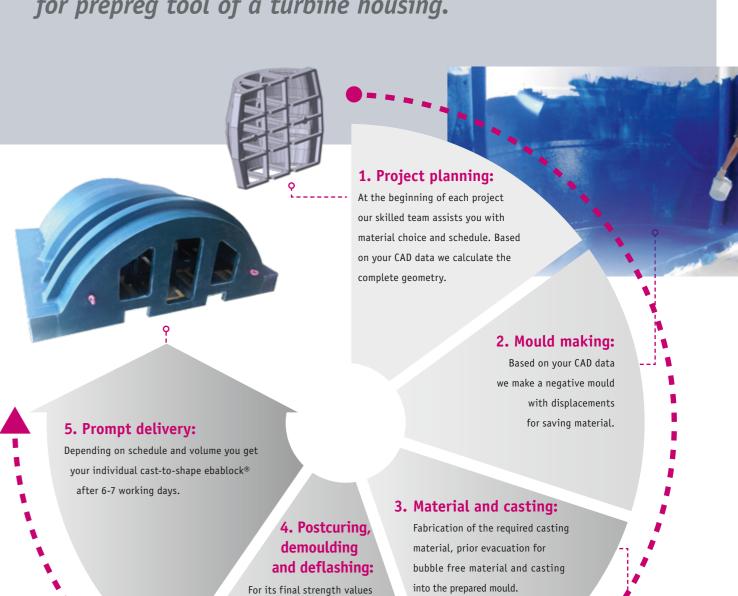


Sheet metal forming tool made of ebablock® W



Pattern for a gear housing made of ebablock® 920

Step-by-step to ebablock®. Example for fabrication of a cast-to-shape master model for prepreg tool of a turbine housing.



and to avoid tensions the ebablock® is postcured after casting. Afterwards removal of displacements and deflashing of mould.

## Lightweight for a perfect surface. ebalta lay-up paste.

## Planning and Application. Service from one source.

#### ebalta lay-up paste P 26: a good choice for your big models

Product name	Lay-up paste P 26
Colours	red brown/light grey
Applications	master models for big laminating tools and design models for automotive, aircraft, boat building, wind engery
Material properties	epoxy lay-up paste 10-35 mm layer thickness in one step low exothermic reaction excellent machinability fine structure no sagging at vertical surfaces
Density (g/cm³)	0.75
Potlife (min.)	45-60
Mixing ratio in weight proportion	100:100

For repair of gaps or amending the surface apply our repair putty P 26

#### **Project** planning

- determine schedule and milestones lay-out of carrier made of polystyrene, polyurethane foam or laminate
- delivery of P 26 within 24 hours

#### **Application**

- application on-site or in-house ebalta with our machine
- training of your staff and adjustment of your machine for P 26
- curing after 24–48 hours

#### Your definite benefits:

- application by our experienced paste team
- available in 24 hours
- flexible, economic and prompt processing



ebalta paste-application-team with own machine



Application of P 26 light grey



Machining of P 26 red brown



1000 kg lay-up paste P 26 applied by our expert team for an original size model

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