



obomodulan®

Boards, block materials and cast blocks
made of polyurethane for
model-, tool- and mould making



OBO - Your partner for the realisation of your ideas!

The company

OBO-Werke GmbH & Co. KG was established in 1994, although the success story began with the company Otto Bosse in 1869.

From the beginning OBO has been located in Stadthagen where for more than 140 years the business has excelled in the manufacture of wood based laminate materials, for example obo-Festholz®, obo- Multiplex and special plywood and in more recent years obomodulan®.

In the mid 80's the first Obomodulan® boards were supplied in Germany. What started from two grades, has developed over the years to a large comprehensive

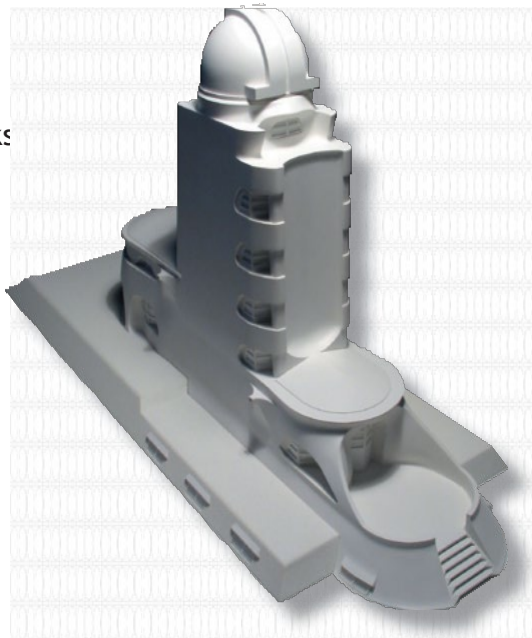
product range. Since July 2004 only polyurethane boards are now manufactured at the Stadthagen facility.



obomodulan®

We develop and produce Model and Tooling Boards, we also manufacture specially cast blocks of obomodulan® to our customers requirements.

More recently special applications have been realised from extraordinary ideas in addition to the well known such as - fences, sculptures and displays for exterior applications.



Our advantages are:

- a comprehensive range of differing densities from 80 up to 1600 kg/m³
- probably the largest range of standard board dimensions up to 2000 x 1000 x 200 mm depending on type and density to optimize efficient use of our material
- cast blocks and mould casting
- profile following bonded block constructions
- full service programme offering cutting, bonding and machining of boards

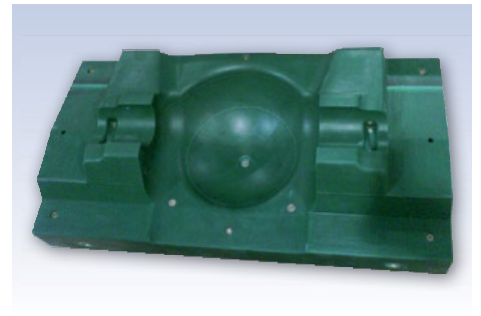


By kind permission of:
werk5 GmbH, Berlin

Properties

obomodulan® convinces by:

- homogeneous and smooth surfaces
- even, fine cell structure
- high edge strength
- low coefficient of thermal expansion
- free machining with low dust generation
- being generally recognized as physiologically neutral
- being odourless



Fields of application

obomodulan® is used amongst others in the following areas:

- Design models
- Styling and architectural models
- Data control models
- Operational models
- Flow patterns
- Original and master models
- machining/router fixtures
- Foundry patterns
- Checking fixtures
- Test units
- Laminating tools
- Pressing tools
- Hammer form tools
- vacuum forming tools



By kind permission of Miele & Cie KG,
Gütersloh

We deliver all standard boards tempered, trimmed and sanded.

Boards, finished tools and models should be stored flat in dry conditions at room temperature.

The material should be acclimatised to 18 - 25°C prior to machining. Temperature variations should be kept as moderate as possible.



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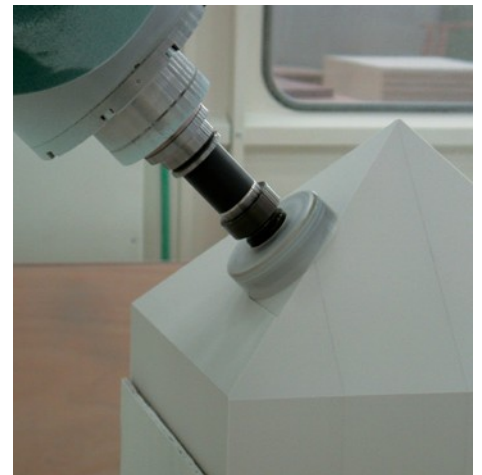
Machining

We recommend the use of high speed CNC-machine centres and traditional wood and plastic working machines for the purpose of machining obomodulan®. In principle, traditional metal working machines are also suitable for this purpose.

However, they generally do not achieve such high speeds and feed rates and may therefore be less efficient.

Carbide milling cutters should be used for machining purposes. Solid carbide for small milling cutters and reversible carbide tips for larger cutter diameters. The cutting edge geometry is identical to that used for machining aluminium.

We can send you the detailed machining processing information by fax or e-mail.



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obomodulan® cast blocks/mould casting

To meet with your requirements obomodulan® can be produced as bespoke cast to size blocks; thus optimizing your costs through a reduction of time and raw material consumption.

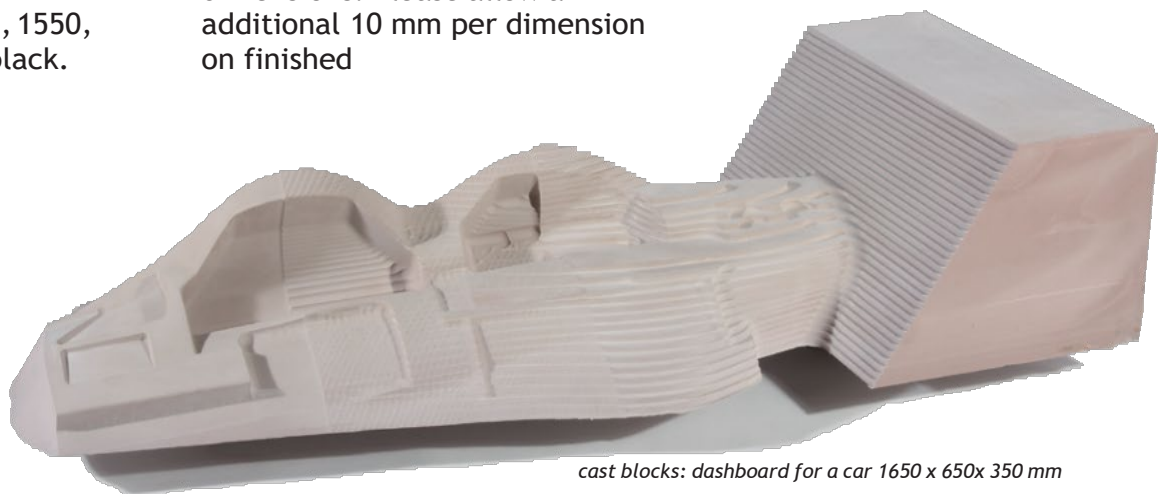
At present, we offer you this service for the obomodulan® types 700, 1000, 1200, 1550, 1600 sand and 1700 black.

Most shapes and profiles are possible in a wide range of dimensions. Cast blocks can be produced either to your design data or a supplied mould tool.

We are able to supply the cast blocks to your specified dimensions. Please allow an additional 10 mm per dimension on finished

sizes, plus any machining allowance you require when specifying cast blocks and boards.

Cast blocks will be delivered tempered but un-machined.



cast blocks: dashboard for a car 1650 x 650x 350 mm

Advantages and properties:

- Our cast forms are produced using the identical formulation as our board material.
- improved economic efficiency by reduced material consumption
- no glue lines
- profile following cast block
- reduced machining time by optimized shape



Casting in a special mould



Cast block with removable core and taper of mould



Wheel rim, with three machining stages



Individual cast block

Horizontal saw cut boards

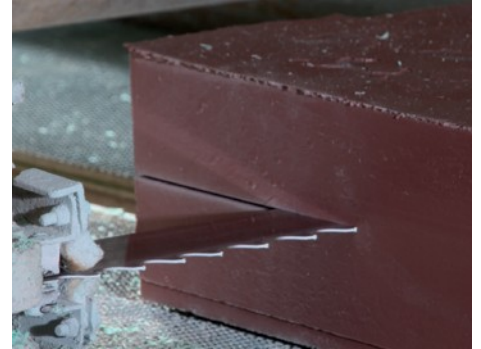
Beside our large variety of standard boards we offer you the following special service:

We cut boards starting at a thickness of 5 mm in every requested thickness with our horizontal saw.

We surface calibrate the boards after cutting.

Your advantage:

- optimized dimension
- easier handling
- reduced milling time
- lesser material waste



Horizontal saw

Bonding facility

You can have all obomodulan® standard types bonded according to your requirements with our bonding press.

We can provide blocks up to 6000 x 1700 x 800 mm, depending on type and weight. We are able to offer you the type 210 and 302 with a dimension up to 2000 x 1000 x 2000 mm.

We use a two component Epoxy based adhesive. However, you may also use any other polyurethane, epoxy or polyester based adhesive of your choice.

This procedure offers the following **important advantages**:

- **Bonded boards and block construction** of this facility give the highest level of stability during machining.
- **Minimal** and uniform glue lines
- **Time and cost saving** production and processing
- **Increased** efficient use of material



Bonding press

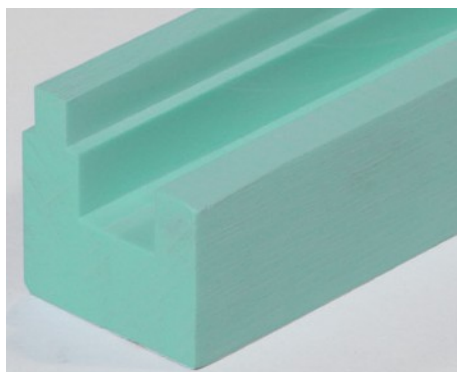


Profile following bonded block constructed

Special machining and service

On request we also manufacture cut to size or special dimensions according to your drawing or sketch.

Beside our CNC machines we have other machines for special machining in house. Please ask us and we are pleased to make you an offer.



Sectional strip made for a customer



CNC machine

