

PRODUCT DATA SHEET

SikaBlock® M945

Polyurethane tooling board

TYPICAL PRODUCT DATA

Chemical base	Polyurethane
Color	Green
Density	1.35 kg/l
Shore D hardness (CQP023-1 / ISO 868)	83
Compressive strength (CQP028-5 / ISO 604)	95 MPa
Flexural strength (CQP027-2 / ISO 178)	100 MPa
Flexural modulus (CQP027-2 / ISO 178)	3400 MPa
Impact resistance (CQP038-2 / ISO 179)	25 kJ/m ²
Heat deflection temperature (CQP030-1 / ISO 75B)	80 °C
Linear coefficient of thermal expansion (CQP053-1 / ISO 11359)	66 x 10 ⁻⁶ 1/K

CQP = Corporate Quality Procedure

DESCRIPTION

SikaBlock® M945 is a slightly filled green polyurethane tooling board for foundry patterns, match plates and core boxes.

PRODUCT BENEFITS

- Very good milling properties
- Low coefficient of thermal expansion
- High abrasion resistance
- High compressive and flexural strength as well as edge stability
- Easy bonding
- Dense surface with good sliding properties

AREAS OF APPLICATION

SikaBlock® M945 is well suited for foundry patterns, match plates and core boxes for cold box process.

It is also designed for various molds and tools, e.g. for metal sheet forming as well as for master models and moldings for high quality demands.

This product is suitable for experienced professional users only. The boards must be tested for the specific application in each case, e.g. type of sand molding process, binder, amine catalyst, etc.

METHOD OF APPLICATION

Product preparation

Before SikaBlock® M945 boards can be processed (machined) they must be conditioned to 18 °C – 25 °C.

If the boards need to be bonded, make sure that the surfaces are clean, dry and free of grease or oil. For cleaning Sika® Cleaner G+M or another suitable cleaner or solvent can be used.

For bonding SikaBlock® M945 boards together use SikaBiresin® B180. Further details on the adhesives can be found in the respective Product Data Sheet.

Application

SikaBlock® M945 can be easily machined by milling, drilling, sawing or modified manually. It is recommended to use high performance tools to machine these boards.

For milling parameters check information from cutting tool manufacturers or get the General Guideline "Milling parameters for SikaBlock®" for more general information.

STORAGE CONDITIONS

The board needs to be stored flat over the entire surface in dry conditions.

Many models and tools are made of bonded boards, either with identical or other materials. Storage at low and elevated temperature can lead to high stresses due to the different expansion coefficients. To prevent this, it is necessary to store the models and tools at a temperature range between 15 °C and 30 °C.

FURTHER INFORMATION

The information herein is offered for general guidance only. Advice on specific applications is available on request from the Technical Department of Sika Industry.

Copies of the following publications are available on request:

- Voluntary Safety Information Sheet
- General Guideline
- Milling parameters for SikaBlock®

PACKAGING INFORMATION

Dimensions [mm]	Pcs./pallet
1000 x 500 x 30	30
1000 x 500 x 50	36
1000 x 500 x 75	24
1000 x 500 x 100	18

BASIS OF PRODUCT DATA

All technical data stated in this document are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

HEALTH AND SAFETY INFORMATION

This product contains no substances which are intended to be released from the article under normal or reasonably foreseeable conditions of use. A Safety Data Sheet is therefore not needed to bring the product to the market, to transport or to use it. For safe use follow the instructions given in the Voluntary Safety Information Sheet.

DISCLAIMER

The information, and, in particular, the recommendations relating to the application and enduse of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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Sika Deutschland CH AG & Co KG
Industry
Stuttgarter Straße 139
72574 Bad Urach
Tel. +49 7125 940-7692
verkauf.industry@de.sika.com
www.sika.de

