BUILDING TRUST

PRODUCT DATA SHEET

SikaBlock® ML45 PK

Polyurethane design board

TYPICAL PRODUCT DATA

Chemical base	Polyurethane
Color	Pink
Density	0.45 kg/l
Shore D hardness (CQP023-1 / ISO 868)	45
Compressive strength (ISO 844)	10 MPa
Flexural strength (CQP027-2 / ISO 178)	12 MPa
Thermal conductivity (ASTM C-518)	0.078 W/(m·K)
Linear coefficient of thermal expansion (CQP053-1 / ISO 11359)	55 x 10^{-6} 1/K
Service temperature	-30 – 65 °C

CQP = Corporate Quality Procedure

DESCRIPTION

SikaBlock® ML45 PK is a polyurethane design board for manufacture of design, styling and master-models.

PRODUCT BENEFITS

- Easy CNC milling giving mostly shavings
- Compact surface being smooth with reduced porosity
- Easy sealing and painting with less layers required
- High strength and edge stability for its light density

AREAS OF APPLICATION

SikaBlock® ML45 PK is perfectly suited for manufacture of design, styling and master-models.

It is also recommended for manufacture of composite mold for low series of laminated parts.

The product is also designed for manufacture of substructure for cubing and data control models.

This product is suitable for experienced professional users only. Tests under actual processing conditions and with additional materials such as coatings and release agents must be performed to proof material compatibility.

METHOD OF APPLICATION

Product preparation

Before SikaBlock® ML45 PK 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 bonding SikaBlock® ML45 PK boards together use SikaBiresin® B200 or SikaBiresin® B260. Further details on the adhesives can be found in the respective Product Data Sheet.

Application

SikaBlock® ML45 PK 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
1500 x 500 x 50	24
1500 x 500 x 75	16
1500 x 500 x 100	12
1500 x 500 x 150	8

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 end-use 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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