



The proven standard
in foundry boards

SikaBlock[®] M945

YOUR JOKER FOR EVERY USE

The excellent package of processing and final properties for model maker and foundry alike makes the new M945 a desirable all-rounder with the best price/performance ratio.

- Simple and reliable bonding (without previously grinding)
- Very good milling behaviour
- High dimensional stability (low CTE value)
- High abrasion and swelling resistance
- Best edge stability and rib stiffness
- Excellent price/performance ratio
- Tailor-made adhesive solution Biresin[®] Kleber grün Neu

SikaBlock® M945

AREAS OF APPLICATION

- manufacture of foundry models, match plates and coldbox core boxes
- manufacture of various moulds and tools (e.g for metal sheet forming)
- manufacture of master models and mouldings for high quality demands

PRODUCT BENEFITS

- excellent milling properties
- easy bonding
- low CTE value
- high abrasion resistance
- very high compressive and flexural strength as well as edge stability
- dense surface with good slipping properties

DESCRIPTION

- **Basis:** Polyurethane, green
- **Adhesive:** Biresin® Kleber Thix, 2K-EP-System, farblos, thixotrop
- **Adhesive:** Biresin® Kleber grün Neu, 2K-PUR-System (with accelerator Biresin® HC586)
- **Dimensions in mm:** 1000 x 500 x Thickness 30/50/75/100

PHYSICAL DATA (APPROX. VALUES)

| | | | |
|--|------------|-------------------|--------------------------|
| Density | ISO 845 | kg/ltr. | 1.35 |
| Shore hardness | ISO 868 | - | D 83 |
| Flexural strength | ISO 178 | MPa | 100 |
| E-Modulus | ISO 178 | MPa | 3,400 |
| Compressive strength | ISO 604 | MPa | 95 |
| Impact resistance | ISO 179 Ue | kJ/m ² | 25 |
| Heat distortion temperature | ISO 75 B | °C | 80 |
| Coefficient of thermal expansion (CTE), α_T | DIN 53 752 | K ⁻¹ | 65-70 x 10 ⁻⁶ |

MILLING PARAMETERS

| Milling steps | 1. | 2. | 3. | 4. | 5. | 6. | 7. |
|--------------------------------------|-----------------------|----------------------------|----------------------------|----------------------------|----------------------|--------------------------|--------------------------------|
| Strategy | Roughing Z - constant | Rest material Z - constant | Rest material Z - constant | Rest material Z - constant | Finishing flat areas | Finishing Z - constant | Finishing rest material shapes |
| Milling tool | Torus cutter | Torus copying cutter | Ball nose copying cutter | Ball nose copying cutter | Torus copying cutter | Ball nose copying cutter | Airline end mill cutter |
| Diameter [mm] | 42 | 20 | 12 | 6 | 8 | 8 | 4 |
| Number of teeth | 3 | 2 | 2 | 2 | 2 | 2 | 2 |
| Radius [mm] | 3 | 4 | 6 | 3 | 1 | 4 | 2 |
| Cutting speed (Vc) [m/min] | 500 | 500 | 600 | 300 | 400 | 400 | 200 |
| Revolutions [1/min] | 3,800 | 8,000 | 16,000 | 16,000 | 16,000 | 16,000 | 16,000 |
| Feedrate per tooth [mm] | 0.5 | 0.5 | 0.2 | 0.15 | 0.12 | 0.12 | 0.12 |
| Feed rate (Vf) [mm/min] | 5,700 | 8,000 | 6,400 | 4,800 | 3,800 | 3,800 | 3,800 |
| Cutting depth (ap) [mm] | 3 | 2 | 1 | 0.3 | 0.3 | 0.3 | 0.1 |
| Cutting width/Line spacing (ae) [mm] | 30 | 10 | 2 | 0.5 | 4 | 0.3 | 0.1 |

Changes that serve technical progress, as well as errors and misprints reserved 06/2019

Our most current General Sales Conditions shall apply.

Please consult the Product Data Sheet prior to any use and processing.

Actual Product Data Sheets and information about additional products please find in:

www.sikaadvancedresins.com



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