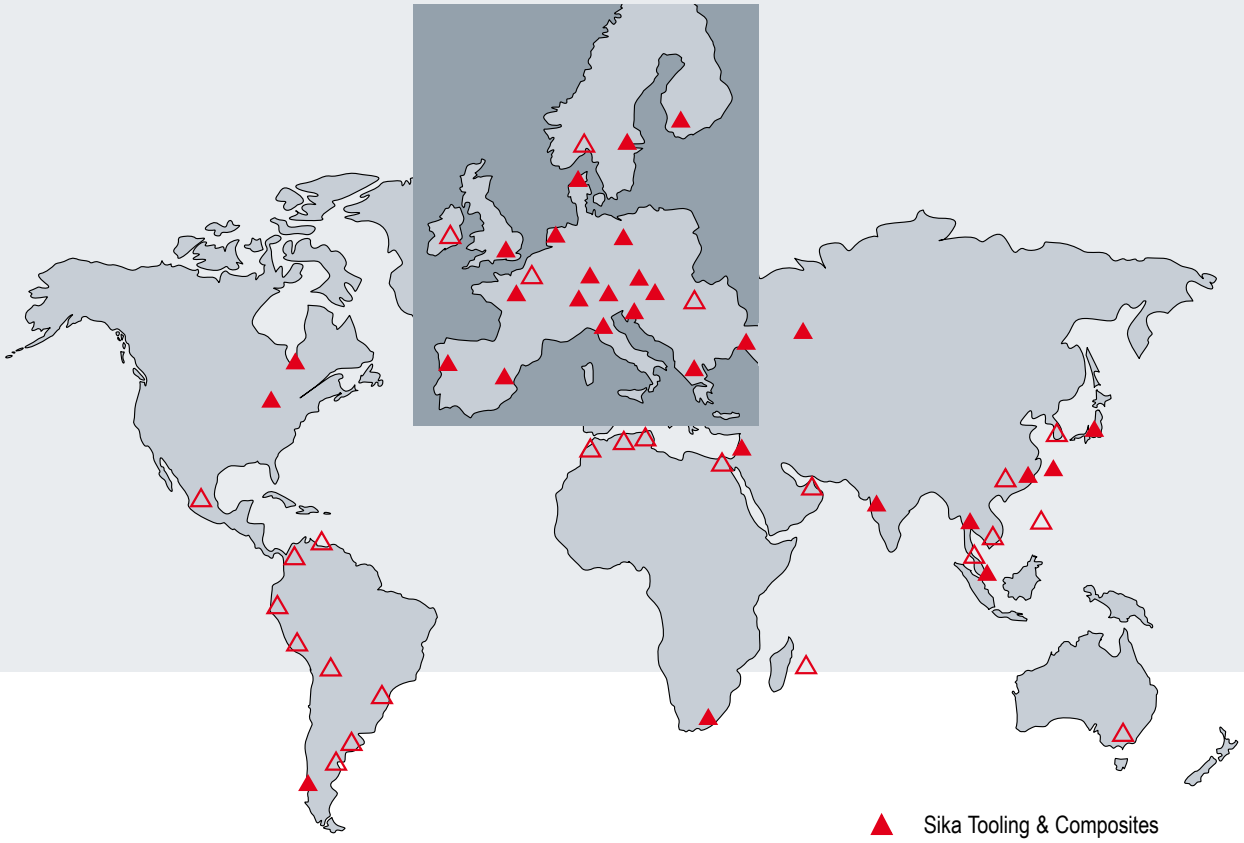
Sika – a Global Network



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Actual Technical Data
Sheets and informations
about additional products
please find in:

www.sika-tooling.com
www.sika.de

Responsible Care

Zertifiziertes Qualitätssystem SQS Reg.-Nr. 10553-05 ISO 9001/EN 29001 seit 1986

Zertifiziertes Management-System SQS ISO 14001 seit 1997

SikaBlock® Board Materials

- ☐ Model Boards
- ☐ Tooling Boards

SikaBlock® Model and Tooling boards

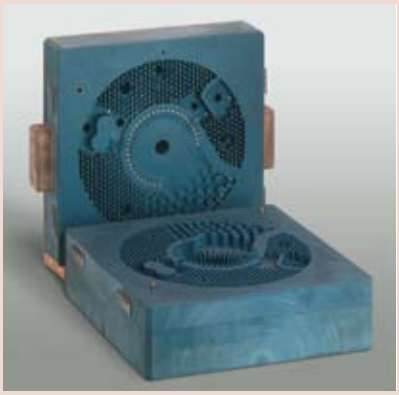
A wide range of application-oriented system solutions consisting of special SikaBlock® board materials and the associated Biresin® Adhesives and Fillers can be used for many applications in the construction of master-, design, styling and cubing models as well as for diverse moulds, foundry patterns, core boxes, gauges and other manufacturing tools.
SikaBlock® board materials are the optimum products for all applications. There are 13 different board types with densities of 0.08 to 1.2 kg/dm^2. They are available in different dimensions and thicknesses of up to 2000 x 1000 x 600 mm.
In accordance with requirements, the materials also differ in respect of their structure, as well as their mechanical and thermal characteristics.
Numerous quality checks help to monitor compliance with these standards.
For us, certification to DIN EN ISO 9001 is a natural expression of our attitude towards quality.

When it comes to development and product updates, we place special value on the following characteristics:

- Physiological harmlessness
- Easy to work material with little wear on tools
- Low levels of dust and smell
- Very small tension levels and therefore low deformation
- Low coefficient of thermal expansion and therefore dimensionally stable
- Homogeneous structure and dense surface quality
- Sufficient strength and heat resistance

SikaBlock® Model boards

SikaBlock®	M80	M150	M300	M450	M650	M700
Density [g/cm³]	0.08	0.15	0.3	0.45	0.58	0.7
Colour	beige	beige	light orange	orange	reddish brown	light brown
Characteristics	easily workable, fine, homogeneous surface, high heat resistance		easily workable, fine structure and homogeneous surface	easily workable, homogeneous surface, low dust formation	easily workable, dense fine surface, good compressive strength and edge stability, high heat distortion temperature, good solvent resistance, low coefficient of thermal expansion	
Applications	styling models, design studies and test milling, substructure for design, styling and clay models		design and styling models, substructure for cubing and DCM, test milling	design and styling models, substructure for cubing and DCM	master models, cubings, DCM, moulds and tools for lower number of pieces (low pressure RIM, vacuum forming, etc.)	
Processing data (approx.-values)						
Dimensions mm]; *[ltr.]*	2000 x 1000 x 100 ; *200* 2000 x 1000 x 200 ; *400* blocks up to 600 mm thickness on request		1500 x 500 x 50 ; *37.5* 1500 x 500 x 100 ; *75* 1500 x 500 x 200 ; *150*	1500 x 500 x 50 ; *37.5* 1500 x 500 x 75 ; *56.25* 1500 x 500 x 100 ; *75* 1500 x 500 x 150 ; *112.5* 1500 x 500 x 200 ; *150*	1500 x 500 x 25 ; *18.75* 1500 x 500 x 50 ; *37.5* 1500 x 500 x 75 ; *56.25* 1500 x 500 x 100 ; *75* 1500 x 500 x 150 ; *112.5*	1500 x 500 x 25 ; *18.75* 1500 x 500 x 50 ; *37.5* 1500 x 500 x 75 ; *56.25* 1500 x 500 x 100 ; *75* 1500 x 500 x 150 ; *112.5*
Adhesive **Biresin®** Mixing ratio Potlife Setting time	**Foam Adhesive** **1-component, humidity curing** open time: 10 min 6-8 h		**Kleber orange** **100 : 65** 20 min 6 h		**Kleber braun** **100 : 65** 20 min 8-10 h	
Filler **Biresin®** Mixing ratio Potlife Setting time	**Spachtel orange** **100 : 2** 5 min > 20 min		**Spachtel orange** **100 : 2** 5 min > 20 min		**Spachtel braun** **100 : 2** 5 min > 20 min	
Physical data (approx.-values)						
Shore-hardness	D 6	D 14	D 30	D 50	D 58	D 66
Flexural strength [MPa]	1.2	2.8	5	12	18	26
HDT [°C]	application temperature -80 up to +130°C		78	78	85	90
CTE, α_T [1/K]	70 x 10^{-6}	60 x 10^{-6}	60 x 10^{-6}	55 x 10^{-6}	55 x 10^{-6}	55 x 10^{-6}



SikaBlock® Tooling boards

SikaBlock®	M911	M940	M960	M970	M1000	M1050	M2010
Density [g/cm³]	1.1	1.2	1.2	1.2	1.0	1.0	0.73
Colour	ivory	green	blue	turquoise	white	grey	light green
Characteristics	extremely high abrasion resistance, free from softeners	very abrasion resistant, excellent milling properties, very high strength	very abrasion resistant, excellent milling properties, impact resistant	extremely abrasion resistant, excellent milling properties, very high strength	low density, good compressive strength and edge stability, low thermal expansion and high dimensional stability		high heat resistance, low thermal expansion, very dense surface
Applications	foundry models, core boxes for seriese	foundry patterns and core boxes, metal sheet forming tools, mouldings and master models			gauges, moulds, foundry and master models		vacuumforming moulds, prepreg and laminating moulds
Processing data							
Dimensions [mm]; *[ltr.]*	dimensions on request	1000 x 500 x 30 ; *15* 1000 x 500 x 50 ; *25* 1000 x 500 x 75 ; *37.5* 1000 x 500 x 100 ; *50*			1500 x 500 x 50 ; *37.5* 1500 x 500 x 75 ; *56.25* 1500 x 500 x 100 ; *75*		1524 x 610 x 50 ; *46.5* 1524 x 610 x 100 ; *93.0*
Adhesive **Biresin®** Mixing ratio Potlife Setting time	**U1320/U1303** **100 : 38** 10 min approx. 6 h	**Power Adhesive Thix** **100 : 33** 30 min 16 h					**HT Adhesive** **100 : 15** 30-35 min approx. 16 h
Filler **Biresin®** Mixing ratio Potlife Setting time	-	**Schnell Kleber blau** **100 : 60** 3 min 1 h			**Spachtel weiß** **100 : 2** 5 min > 20 min	recommendation: Polyesterspachtel Supermetall (Hohnen & Co.)	-
Physical data (approx.-values)							
Shore-hardness	D 62	D 82	D 78	D 84	D 75	D 76	D76
Flexural strength [MPa]	18	105	80	110	48	50	40
HDT [°C]	120	95	80	78	85	90	120
CTE, α_T [1/K]	155 x 10^{-6}	82 x 10^{-6}	85 x 10^{-6}	68 x 10^{-6}	50-55 x 10^{-6}	50-55 x 10^{-6}	35-40 x 10^{-6}