

Further available documents (via download center in internet):

- Product data and Safety data sheets
- Tooling und Composites Overview brochure
- Product flyers about the main products

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



Sika Deutschland GmbH
Sika Advanced Resins
 Stuttgarter Strasse 139
 72574 Bad Urach
 Germany
 Telefon + 49 (0) 7125 940-492
 Fax + 49 (0) 7125 940-401
 E-Mail tooling@de.sika.com
www.sikaadvancedresins.de

Sika Automotive France SAS
Sika Advanced Resins
 Z.I. des Béthunes - 15 rue de l'Équerre
 CS 40444 Saint Ouen l'Aumône
 95005 Cergy pontoise Cedex - France
 Phone +33 (0) 134 40 34 60
 Fax +33 (0) 134 21 97 87
 E-Mail advanced.resins@fr.sika.com
www.sikaadvancedresins.fr

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

IDEAL SOLUTIONS FOR FOUNDRY PATTERN MAKING

- SikaBlock® Board materials
- SikaBiresin® 2C-Liquid-systems

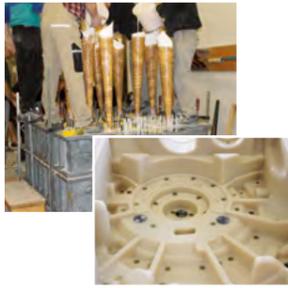
BUILDING TRUST



BUILDING TRUST



FACE CASTING PROCESS



Biresin® U1320 NT:

- Nontoxic face casting resin is already being successfully used for series production of core boxes and match plates in the market since end of 2012
- Good, safe and easy hand casting process
- Successful casting of one half of core box of approx. 100 kg Biresin® U1320 NT in 12 min.
- Optimum adhesion of Biresin® U1320 NT on aluminium substructures with 1C-Primer Sika® Aktivator-205

Biresin® U1419:

- The low shore hardness of A 96 offers highest abrasion resistance in core boxes. Especially opposite the shooting nozzles, the material is ideally suited due to its high rebound elasticity
- With **hardener Biresin® U1419** and a pot life of approx. 7 min. for small core boxes and a very short demoulding time
- With **hardener Biresin® U1458** and a pot life of 20 min. also suitable for larger core boxes

UR 3490:

- Higher shore hardness (D 67), good heat resistance (T_c 100 °C) and a good abrasion resistance
- Favorite product for match plates/foundry patterns

LAYER CONSTRUCTION PROCESS



GC2 070:

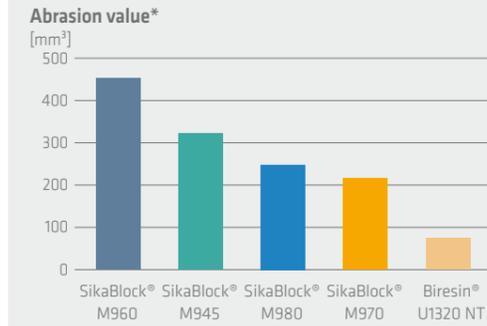
- Abrasion resistant foundry tool by layer construction process with EP gelcoat **GC2 070** which is easy to apply.



Biresin® L90 und Epopast 400:

- Lightweight negatives and foundry tools can be easily produced with fibre reinforced EP laminating pastes.
- Suitable for lightweight negatives and foundry tools with high dimensional accuracy

CNC MILLING



* Standardised abrasion test for elastomeric resins [ISO 4649] - the lower the measured value (abrasion in mm³) the higher the abrasion resistance.



SikaBlock® M600, M700 and Prolab 65:

- The brown model boards can be milled fast with low dust formation. Results are high quality core models and foundry tools for first tests with dense smooth surfaces. They are different in terms of density and resulting surface quality and mechanical strength.

SikaBlock® M935:

- Very high dimensional stability, suitable for foundry models and prototype core boxes
- Large board dimension of 1500 mm x 500 mm offers less bonding joints.

SikaBlock® M945:

- The excellent milling behaviour and high abrasion resistance qualifies the green **SikaBlock® M945** to the status to be **the** new preferred standard foundry board in the market.

SikaBlock® M980:

- Core boxes for small and medium series out of **SikaBlock® M980** are stable due to high abrasion and swelling resistance combined with low thermal expansion.



SikaBlock® M970:

- PUR foundry board with highest abrasion resistance for longlife core boxes and model boards.
- Excellent milling behaviour with low dust
- Low thermal expansion

	Manufacture	Symbol	Products SikaBlock® / Biresin®	Basis	Negatives Master-/Core models	Foundry patterns Match plates	Core boxes	Characteristic (Application)	Abrasion resistance (Number of demouldings*)				
									Tests	Prototypes	Small Series	Series	
Machining of SikaBlock® boards	CNC Milling		M600	PU	●	○	○	easily workable					
			M700 / Prolab 65	PU	●	○	○	high-grade surface					
			M935	PU	●	●	○	low CTE value, 1500 mm length					
			M945	PU	○	●	●	preferred foundry board					
			M980	PU	●	●	●	very abrasion resistant and low CTE value					
			M970	PU	●	●	●	highest abrasion resistance and low CTE value					
2C-Resin Processing of Biresin® Products A/B	Gelcoat + Bonding Layer Biresin® LS/LS + 10 % chopped glass fibres		GC1 050	EP	●	○	○	easily workable					
			GC2 070	EP	●	●	○	very hard and abrasion resistant					
	Working surface	Mass Casting		G26/G26 + TE Filler	PU	●	○	○	fast demoulding, high filler loading				
				G46/G46	PU	●	●	○	good workable, high casting thickness				
				G48/G55 + TE Filler	PU	●	●	○	abrasion resistant, workable, high filler loading				
	Face Casting		F160-1, G26/G26	PU	●	○	○	fast demoulding, good workable					
			G30, EPO 5019	EP	●	●	○	abrasion resistant, workable, multi purpose					
			G48/G55	PU	●	●	○	abrasion resistant, workable, impact resistant					
			U1305/U1305	PU	●	●	●	high abrasion resistant (elastic sealing lips)					
			U1419/U1419, /U1458	PU	●	●	●	high abrasion resistant, fast demoulding					
			UR 3490	PU	●	●	○	high abrasion resistant, heat resistant					
	Backfilling	Mass Casting		G32/F4 + Aluminium grit	EP	●	●	●	high filler loading, good workable	Abrasion resistance is not relevant, because it is not the contact surface.			
				G46/G46 + PVC-granulate	PU	●	●	●	workable, reasonable PU solution				
G48/G55 + TE Filler				PU	○	●	●	high grade PU backfilling (mass casting system)					
Backfill Stamping			LS/LS + Quartz sand	EP	○	●	●	reasonable backfilling					
	LS/LS + Aluminium grit		EP	○	●	●	workable backfilling						
Laminating Paste		L90/L90 Epopast 400	EP	●	●	●	fibre reinforced, true-to-size, light						

● most suitable ○ limited suitable

* In every case the number of mouldings is dependent on resp. application and moulding process.