

Biresin® S8 Gelcoat, polishable and heat resistant

Areas of Application

- Gelcoat for manufacture of master models and gauges
- Gelcoat for manufacture of negative moulds e.g. for composites production
- Gelcoat for manufacture of vacuumforming moulds
- Gelcoat for other heatable production facilities

Product Benefits

- Black gelcoat
- Polishable to high gloss - a degree of gloss of 85 is achievable
- Good grindability
- Good spreading properties
- Good heat resistance up to 130°C
- Dense surface and good edge stability
- Good styrene resistance

Description

- Basis Two component epoxy system
- Component A **Biresin® S8**, epoxy resin, black
- Component B **Biresin® S8**, amine, amber

Processing Data

		Component A	Component B
Individual components		Biresin® S8	Biresin® S8
Viscosity, 23°C	mPa.s	thixotropic	~ 130
Density, 23°C	g/ml	1.21	1.00
Mixing ratio A : B	in parts by weight	100	20
		Mixture	
Mixed viscosity, 23°C	mPa.s	~ 25,000	
Potlife, 200 g, RT	min	30	
Geltime, RT	min	60	
Demoulding time, RT	h	16 - 24	

Physical Data (approx. values)

Biresin® S8 (A)			with Component B	Biresin® S8	
Colour				black	
Density	ISO 1183	g/cm³		1.22	
Shore hardness	ISO 868	-		D 86*	
E-Modulus	ISO 178	MPa		3,500*	
Flexural strength	ISO 178	MPa		90*	
Compressive strength	ISO 604	MPa		120*	
Impact resistance	ISO 179	kJ/m²		9*	
Heat distortion temperature	ISO 75C	°C		136*	

* values after post curing: 4 h / 120°C

Packaging

Working packages	Biresin® S8 , A+B Pack	6 x 0.4 kg net component A + 6 x 0.08 kg net component B in a box
Individual components	Biresin® S8 , (A) Biresin® S8 , (B)	8 kg net 1.6 kg net

Processing

- The material, processing and mould temperature must be from 18 to 25°C.
- Then the thoroughly mixed (with spatula or slow speed mixing equipment) Biresin® S8 mixture is applied directly out of the container using a flat, short-haired brush.
- The coating is applied in an uniform direction to ensure a homogeneous, even and void-free surface coat on the mould surface. The mould surface has to be pretreated with suitable release agents before.
- Within geltime a coupling layer or other backfilling layers can be applied to avoid adhesion problems.
- Better resistance of the surface compound to elevated temperatures, different solvents as well as exposition to water will be obtained after a post treatment of 4 h at 120°C of demoulded parts. In this case a slow heating and slow decreasing of temperature after treatment are required.

Storage

- Minimum shelf life of Biresin S8 (A) is 24 month and of Biresin S8 AB Pack and Biresin S8 (B) is 12 month under room conditions (18 - 25°C), when stored in original un-opened containers.
- After prolonged storage at low temperature, crystallisation of the A component may occur. This is easily removed by warming up for a sufficient time to 60-80°C. Allow to cool to room temperature before use.
- Containers must be closed tightly immediately after use to prevent moisture ingress. The residual material needs to be used up as soon as possible.

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety related data.

Disposal considerations

Product Recommendations: Must be disposed of in a special waste disposal unit in accordance with the corresponding regulations.

Packaging Recommendations: Completely emptied packagings can be given for recycling. Packaging that cannot be cleaned should be disposed of as product waste.

Value Bases

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

Legal Notice

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.

Further information available at:

Sika Deutschland GmbH

Subsidiary Bad Urach

Stuttgarter Str. 139

D - 72574 Bad Urach

Germany

Tel: +49 (0) 7125 940 492

Fax: +49 (0) 7125 940 401

Email: tooling@de.sika.com

Internet: www.sika.com

