

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*	
Flexural 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 deflection temperature	ISO 75B	°C		130*	
Glass transition temperature (Tg)		°C		134*	

* 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)	0,4 kg; 8 kg net 0,08 kg; 1.6 kg net

Processing

- The material, processing and mould temperature must be from 18 to 25 °C.
- Component A must be stirred thoroughly before use.
- 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 must 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.
- 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

Uncured products are typically hazardous waste and must be disposed of properly. Cured material can be disposed of as domestic / commercial waste after consultation with the respective competent authority or landfill.

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

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