Tooling & Composites

Product Data Sheet
Version 02 / 2016

Biresin® U1305

Elastomeric casting resin for mould making, Shore A 89

Areas of Application

- Coating of wear stressed surfaces in machine, container and automotive construction
- Manufacture of seals and gaskets, elastic supports and moulds
- Encaspsulation of sensitive instruments for protection against mechanical and water influence
- Encapsulation of electronic components
- Adhesive for spall liners in armoured vehicles

Product Benefits

- Easy to mix by hand or with mechanical stirrer
- Good tensile strength and elasticity
- High tensile strength and elongation at break
- Very low shrinkage
- High abrasion resistance
- Casting thickness 40 up to 50 mm
- Acceleration with **Biresin® HC 586** possible (for more informations see Product Data Sheet)
- Dyeable with **Biresin® Farbpasten**

Description

- Basis — Two component PUR system
- Component A — **Biresin® U1305**, isocyanate prepolymer, colourless-transparent
- Component B — **Biresin® U1305**, polyol, beige and black

Processing Data		Component A	Component B
Individual components		**Biresin® U1305**	**Biresin® U1305**
Viscosity, 25°C	mPa.s	~ 4,200	~ 600
Density	g /ml	1.14	1.03
Mixing A : B	in parts by weight	100	60
		Mixture	
Mixed viscosity, 25°C	mPa.s	~ 2,300	
Potlife, 500 g, RT	min	15 - 20	
Demoulding time, RT	h	10 - 16	
Curing time, RT	d	7	

Physical Data (approx. values)			
Biresin® U1305 (A)	with component B		**Biresin® U1305**
Colour			cream-white and black
Density	ISO 1183	g/cm³	1.2
Shore hardness	ISO 868	-	A 89
Tear resistance	ISO 34	N/mm	27
Tensile strength	ISO 527	MPa	25
Elongation at break	ISO 527	%	300
Linear shrinkage	internal	%	0.1
Abrasion resistance	ISO 4649	mm³	75

Packaging

Working packages	**Biresin® U1305** A+B Pack, beige	6 x 1 kg net resin + 6 x 0,6 kg net hardener in a box
Individual components	**Biresin® U1305** (A)	200 kg; 20 kg; 10 kg net
	Biresin® U1305 (B), beige	12 kg; 6 kg net
	Biresin® U1305 (B), black	12 kg net; 6 kg net

Processing

- The material, processing and mould temperature must be from 18 to 25°C.
- The B component must be mixed thoroughly before use.
- It is possible to add Biresin® Farbpaste to the B component before processing if required.
- A visible cloudiness or a solid white consistency of the A component means that crystallization has either just begun or is in an advanced state. This crystallization can be removed by simply heating for a short time at maximum 70°C and then cooling to room temperature again before use.
- Pay attention to dry conditions and dry mould surfaces while processing.
- The resin and hardener components are to be mixed thoroughly and poured immediately into previously released moulds (e.g. with Sika® Liquid Wax-815 resp. Sika® Pasty Wax-818; for more information see product data sheet).
- Porous surfaces (wood, gypsum) have to be well sealed before processing.
- For the application as adhesive adhesion tests with the bonding partner are recommended.

Storage

- Minimum shelf life is 12 month under room conditions (18 - 25°C), when stored in original un-opened containers.
- Crystallization of the components may occur due to improper storage conditions. Please refer to the recommended actions to be taken under the processing section.
- 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

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