PRODUCT DATA SHEET

SikaBiresin® UR305 (Biresin® U1305)

ELASTOMERIC CASTING RESIN FOR MOULD MAKING, SHORE A 89

APPLICATIONS

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

MAIN PROPERTIES

- 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 information see Product Data Sheet)
- Dyeable with **SikaBiresin® Colour Paste**

DESCRIPTION

Basis	Two component polyurethane system
Component A	**SikaBiresin® UR305**, isocyanate prepolymer, colourless-transparent
Component B	**SikaBiresin® UR305**, polyol, beige and black

PHYSICAL PROPERTIES

		Isocyanate (A)	Polyol (B)
Components		**SikaBiresin® UR305**	**SikaBiresin® UR305**
Viscosity, 25 °C	mPa.s	~ 4,200	~ 600
Density	g/cm³	1.14	1.03
Mixing ratio A:B	in parts by weight	100	60
		Mixture	
Colour		Cream-white and black	
Viscosity, 25 °C	mPa.s	~ 2,300	
Pot life, room temperature, 500 g	min	15 – 20	
Demoulding time	h	10 – 16	
Curing time	d	~ 7	

MECHANICAL PROPERTIES

approx. values

Density	ISO 1183	g/cm³	1.2
Shore hardness	ISO 868	-	A 89
Tensile strength	ISO 527	MPa	25
Elongation at break	ISO 527	%	300
Tear resistance	ISP 34	N/mm	27
Linear shrinkage	Internal	%	0.1
Abrasion resistance	ISO 4649	mm³	75

PACKAGING UNITS

Working packages	■ Isocyanate (A) + Polyol (B), **SikaBiresin® UR305**, beige	6 x 1 kg resin + 6 x 0,6 kg hardener in a box
Individual components	■ Isocyanate (A), **SikaBiresin® UR305**	200 kg; 20 kg; 10 kg; 6 x 1,0 kg
	■ Polyol (B), **SikaBiresin® UR305**, beige	200 kg; 12 kg; 6 kg; 6 x 0,6 kg
	■ Polyol (B), **SikaBiresin® UR305**, black	200 kg; 12 kg; 6 x 0,6 kg

PROCESSING DATA

- The material, processing and mould temperature must be at least 18 – 25 °C.
- Component B must be stirred thoroughly before use.
- When using pigments, it is recommended to add max. 1% of SikaBiresin® Colour Paste.
- Add the pigments prior to processing to component B.
- Both components have to be mixed thoroughly according to mixing ratio and poured immediately into the released mould with beginning at the lowest point.
- Porous surfaces have to be well sealed previously.
- If using wood (e. g. laminated wood) as supporting cores or PUR foam plates with low to middle density, a previous sealing is necessary.
- The compatibility of the sealing on PUR foam has to be tested separately
- Recommended release agents are Sika® Liquid Wax-815, Sika® Liquid Wax-852, Sika® Liquid Wax-872 or Sika® Pasty Wax-818. For more information, see Product Data Sheets of the release agents.
- Pay attention to dry conditions and dry mould surfaces while processing.
- For the application as adhesive adhesion tests with the bonding partner are recommended.

STORAGE CONDITIONS

Shelf life	■ Isocyanate (A), **SikaBiresin® UR305**	12 months
	■ Polyol (B), **SikaBiresin® UR305**	12 months
Storage temperature	■ Isocyanate (A), **SikaBiresin® UR305**	18 – 25 °C
	■ Polyol (B), **SikaBiresin® UR305**	18 – 25 °C
Crystallization	■ 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.	
Opened packagings	■ Containers must be closed tightly immediately after use to prevent moisture ingress. ■ The residual material needs to be used up as soon as possible.	

FURTHER INFORMATION
The information herein is offered for general guidance only. Advice on specific applications is available on request from the Technical Department of Sika Advanced Resins. Copies of the following publications are available on request: Safety Data Sheets

BASIS OF PRODUCT DATA
All technical data stated in this document are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

HEALTH AND SAFETY INFORMATION
For information and advice regarding transportation, handling, storage and disposal of chemical products, users shall refer to the actual Safety Data Sheets containing physical, ecological, toxicological and other safety-related data.

LEGAL NOTICE

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