BUILDING TRUST

PRODUCT DATA SHEET

SikaBiresin® UR305

Elastomeric casting resin for multi-purpose applications

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Properties		SikaBiresin® UR305 (A)	SikaBiresin® UR305 (B)
Chemical base		Isocyanate prepolymer	Polyol
Color		Colorless-transparent	Beige, black
	mixed	Beige, black	
Density		1.14 kg/l	1.03 kg/l
	cured	1.2 kg/l	
Mixing ratio	by weight	100 : 60	
Viscosity (CQP029-4)		4200 mPa·s	600 mPa·s
	mixed	2300 mPa·s	
Pot life (CQP021-4)	500 g	20 minutes	
Demolding time		16 hours	
Curing time	at 23 °C	7 days	
Casting thickness		up to 50 mm	
Shore A hardness (CQP023-1 / ISO 868)		89 [A]	
Tensile strength (CQP036-6 / ISO 527)		25 MPa [A]	
Elongation at break (CQP036-6 / ISO 527)		300 % [A]	
Tear propagation resistance (CQP045-1 / ISO 34)		27 N/mm [A]	
Linear shrinkage (CQP014-5)	500 x 25 x 15 mm	0.1 % [A]	
Abrasion resistance (CQP112-1 / ISO 4649)		75 mm^3 [A]	
Shelf life		12 months	

CQP = Corporate Quality Procedure

A) curing condition: 23 °C for 7 days

DESCRIPTION

SikaBiresin® UR305 is a 2-component polyurethane elastomeric casting resin.
It is a very versatile product which can be used in various applications.

PRODUCT BENEFITS

- Good tensile strength
- High elongation at break
- Very high abrasion resistance
- Very low shrinkage
- Casting thickness up to 50 mm
- Customized colors with SikaBiresin® Color Paste

AREAS OF APPLICATION

SikaBiresin® UR305 is designed for coating of wear stressed surfaces in machine, container and automotive construction as well as for manufacture of seals, gaskets, elastic supports and molds.
The product is also well suited for encapsulation of electronic components and sensitive instruments for protection against mechanical and water influence.
It is also used as an adhesive for spall liners in armored vehicles.
This product is suitable for experienced professional users only. Tests under actual processing conditions and with additional materials such as coatings and release agents must be performed to proof material compatibility.

METHOD OF APPLICATION

Surface preparation

The material, processing and mold or master-model temperature shall be between 18 °C – 25 °C.
Make sure the mold or master model is clean, dry, dust and grease free.
If mold or master-model surface is porous, it must be sealed prior applying the release agent.
It is recommended to use wax-based release agents. For further information regarding Sika release agent consult the corresponding Product Data Sheet.

Mixing process

Prior to use check the material for homogeneity and crystallization. After prolonged storage at low temperature, crystallization of components may occur. This process can be easily reversed by heating the affected component to a maximum of 70 °C until the crystals have disappeared. Allow to cool down to requested processing temperature before use.
Consider, pot life is affected by temperature and mixed quantity.
If the Product needs to be pigmented, max. 1 % of SikaBiresin® Color Paste shall be added.
Add the pigment in component B and stir to homogenize prior mixing with component A.
Both components must be mixed thoroughly respecting the defined mixing ratio. The mixing can be performed with a spatula or a machine stirrer at ≤ 300 rpm.
To secure homogeneous and complete mixing, pour the mixed product into another container and mix again shortly, considering the pot life.
Note: Both containers must be closed tightly immediately after use to prevent moisture ingress.
Once opened the Product shall be used up as soon as possible.

Application

Immediately after mixing pour the Product into the mold starting at the deepest point.
Demolding time may vary depending on casted thickness and room temperature.

STORAGE CONDITIONS

Both components must be stored at temperature between 15 °C and 25 °C in original unopened containers.

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 Industry.
Copies of the following publications are available on request:

- Safety Data Sheets

PACKAGING INFORMATION

SikaBiresin® UR305 (A)

Box with bottles	6 x 1 kg
Canister	10 kg 20 kg
Drum	200 kg

SikaBiresin® UR305 beige (B)

Box with tins	6 x 0.6 kg
Pail	6 kg
Hobbock	12 kg

SikaBiresin® UR305 black (B)

Hobbock	12 kg

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.

DISCLAIMER

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.

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