

PRODUCT DATA SHEET

SikaBiresin® UR675

POLYURETHANE CASTING ELASTOMERE – SHORE A 75

APPLICATIONS

- Dedicated to be cast by hand or with a 2K machine to achieve soft parts requiring high mechanical properties

MAIN PROPERTIES

- High elongation at break
- Extremely high abrasion resistance
- Quick setting

DESCRIPTION

Basis	Two component polyurethane system
Component A	SikaBiresin® UR503, isocyanate, amber
Component B	SikaBiresin® UR675, polyol, white

PHYSICAL PROPERTIES

		Isocyanate (A)	Polyol (B)
Components		SikaBiresin® UR503	SikaBiresin® UR675
Viscosity, 25 °C	mPa.s	2,000	Crystallized / 2,500 after heating
Aspect at 25 °C		Liquid	Crystallized
Aspect at 40 °C		Liquid	Liquid
Density, 25 °C		1.16	1.02
Mixing ratio A:B	in parts by weight	60	100
		Mixture	
Colour		Opalescent	
Viscosity, 25 °C	mPa.s	~ 2,500	
Pot life, 25 °C, 100 g	min	8	
Pot life, 35 °C, 100 g	min	6	
Demoulding time at 80 °C	min	20	
Curing time (70 °C post curing)	h	16	
Maximal casting thickness	mm	40	

MECHANICAL PROPERTIES

approx. values, hardening 16 h at 70 °C

Density, 23 °C	ISO 2781		1.08
Shore hardness	ISO 868	Shore A	A 75
Tensile strength	ISO 37	MPa	11
Tear strength	ISO 34	kN/m	31
Elongation at break	ISO 37	%	500
Abrasion resistance	ISO 5470	mm ³ /100U	2

THERMAL AND SPECIFIC PROPERTIES

approx. values, hardening conditions 16 h at 70 °C

Working temperature	-	°C	-30 / + 80
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PACKAGING UNITS

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| ■ Isocyanate (A), SikaBiresin® UR503 | 5 kg; 2.5 kg net |
| ■ Polyol (B), SikaBiresin® UR675 | 20 kg |

PROCESSING DATA

- The material, processing and mould temperature should be at least 18 – 25 °C.
- Component B crystallizes at room temperature. Pre-heat up to 40 – 60 °C and shake it to get a homogeneous liquid before use. Let it cool down to 25 – 35 °C before mixing.
- Pay attention to dry conditions and dry mould surfaces while processing.
- Both components have to be mixed thoroughly according to mixing ratio and poured immediately into the released mould with beginning at the lowest point.

STORAGE CONDITIONS

Shelf life	■ Isocyanate (A), SikaBiresin® UR503	6 months
	■ Polyol (B), SikaBiresin® UR675	6 months
Storage temperature	■ Isocyanate (A), SikaBiresin® UR503	18 – 25 °C
	■ Polyol (B), SikaBiresin® UR675	18 – 25 °C
Crystallization	■ Component B (Polyol) crystallizes at room temperature.	
	■ This is easily removed by warming up to 40 °C / 60 °C before use.	
	■ Excessive heating may cause a degradation of the final product (temperature > 60 °C or heating time > 12 hours).	
Open 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

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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