

PRODUCT DATA SHEET

SikaBiresin[®] UR368 (UR3468)

POLYURETHANE CASTING ELASTOMER

APPLICATIONS

- Production of parts requiring a high abrasion resistance (e.g. sanding masks etc...)

MAIN PROPERTIES

- High mechanical properties
- Good hydrolysis resistance
- High abrasion resistance

DESCRIPTION

Basis	Two component polyurethane system
Component A	SikaBiresin[®] UR368 , isocyanate, amber
Component B	SikaBiresin[®] UR368 , polyol, green*

PHYSICAL PROPERTIES

		Isocyanate (A)	Polyol (B)
Components		SikaBiresin[®] UR368	SikaBiresin[®] UR368
Viscosity, 25 °C	mPa.s	18,000	400
Density, 25 °C	g/cm ³	1.05	1.08
Mixing ratio A : B	by weight	100	25
Mixing ratio A : B	by volume	100	24
		Mixture	
Colour		Dark amber*	
Viscosity, 25 °C	mPa.s	5,000	
Pot life, 25 °C, 150 g	min	15	
Demolding time, 23 °C	h	24	
Demolding time, 80 °C		3	
Curing time, 23 °C	h	96	
Curing time, 80 °C (curing after gelification)		4	
Maximum casting thickness	mm	80	

*The colour of raw materials can differ without changing mechanical properties

MECHANICAL PROPERTIES

(approx. values)

Density	ISO 2781	g/cm ³	1.09
Shore hardness	ISO 868	A1 / A15	89 / 88
Tensile strength	ISO 37	MPa	30
Elongation at break	ISO 37	%	900
Tear resistance	ISO 34	kN/m	95
BASHORE resilience	ASTM 2632	%	48
Linear shrinkage (specimen 250 x 50 x 3 mm)	-	mm/m	0.80
Abrasion resistance (TABER)	ISO 5470	mg / 100U	4

THERMAL AND SPECIFIC PROPERTIES

(approx. values; hardening 4 hours and 16 hours / 70 °C)

Working temperature	-	°C	-40 / +80
Glass transition temperature	ISO 11357	°C	-70
Coefficient of thermal expansion (0° to +40 °C)	ISO 11359	10 ⁻⁶ K ⁻¹	200

PACKAGING UNITS

- | | |
|---|--------------------|
| ■ Isocyanate (A), SikaBiresin® UR368 | 6 x 1 kg / 20 kg |
| ■ Polyol (B), SikaBiresin® UR368 | 6 x 0.25 kg / 5 kg |

PROCESSING DATA

- The material, processing and mold or master-model temperature shall be between 18 °C and 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.
- 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.
- 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, always considering the pot life.
- 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.
- Containers must be closed tightly immediately after use to prevent moisture ingress.
- Once opened the product shall be used up as soon as possible.

STORAGE CONDITIONS

Shelf life	■ Isocyanate (A), SikaBiresin® UR368	12 months
	■ Polyol (B), SikaBiresin® UR368	12 months
Storage temperature	■ Isocyanate (A), SikaBiresin® UR368	15 °C – 25 °C
	■ Polyol (B), SikaBiresin® UR368	15 °C – 25 °C

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 enduse 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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