

PRODUCT DATA SHEET

SikaBiresin[®] UR406 (Biresin[®] U1406)

ELASTOMERIC CASTING RESIN FOR MOULD MAKING

APPLICATIONS

- Casting of flexible moulds for ceramic and gypsum processing
- Manufacture of elastic, flexible mouldings and components

MAIN PROPERTIES

- Insensitive to moisture
- Excellent flowability at processing
- Rubbery, high elongation at break
- Good tensile strength and elasticity
- Very low shrinkage
- Minimum water absorption
- Bonds well to itself for modification

DESCRIPTION

Basis	Two component polyurethane system
Component A	SikaBiresin[®] UR406 , MDI prepolymer, yellowish-transparent, unfilled
Component B	SikaBiresin[®] UR405 , amine, reddish-transparent, unfilled SikaBiresin[®] UR406 , amine, reddish-transparent, unfilled

PHYSICAL PROPERTIES

		Prepolymer (A)	Amine (B)	Amine (B)
Components		SikaBiresin[®] UR406	SikaBiresin[®] UR405	SikaBiresin[®] UR406
Viscosity, 25 °C	mPa.s	~ 3,000	~ 750	~ 830
Density	g/cm ³	1.03	1.05	1.05
Mixing ratio A:B	in parts by weight	100	50	30
Mixture				
Colour		Yellowish-transparent		
Viscosity, 25 °C	mPa.s	~ 2,500		~ 2,800
Pot life, room temperature, 500 g	min	20		15 – 20
Demoulding time	h	> 16		> 16
Curing time	d	5 – 7		5 – 7

MECHANICAL PROPERTIES

approx. values

			SikaBiresin® UR405	SikaBiresin® UR406
Density	ISO 1183	g/cm ³	1.05	1.05
Shore hardness	ISO 868	-	A 42	A 55
Tensile strength	ISO 527	MPa	3,5	5
Elongation at break	ISO 527	%	300	450
Tear strength	ISO 34B	N/mm	5,5	12

PACKAGING UNITS

- | | |
|--------------------------------------|-------|
| ■ Prepolymer (A), SikaBiresin® UR406 | 10 kg |
| ■ Amine (B), SikaBiresin® UR405 | 5 kg |
| ■ Amine (B), SikaBiresin® UR406 | 3 kg |

PROCESSING DATA

- The material, processing and mould temperature must be at least 18 – 25 °C.
- Both components must be shaken well before use.
- 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.

STORAGE CONDITIONS

Shelf life	■ Prepolymer (A), SikaBiresin® UR406	12 months
	■ Amine (B), SikaBiresin® UR405	12 months
	■ Amine (B), SikaBiresin® UR406	12 months
Storage temperature	■ Prepolymer (A), SikaBiresin® UR406	18 – 25 °C
	■ Amine (B), SikaBiresin® UR405	18 – 25 °C
	■ Amine (B), SikaBiresin® UR406	18 – 25 °C
Crystallization	■ After prolonged storage at low temperature, crystallization of components may occur.	
	■ This is easily removed by warming up for a sufficient time to a maximum of 70 °C.	
	■ Allow to cool to requested processing temperature 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

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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