PRODUCT DATA SHEET

SikaBiresin® UR303 (Biresin® U1303)

ELASTOMERIC CASTING SYSTEM FOR MOULD MAKING, SHORE A 73 / A 81 / A 90

APPLICATIONS

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

MAIN PROPERTIES

- Insensitive to moisture
- Rubbery
- Good tensile strength and elasticity
- Several B components for different Shore hardness levels
- Very low shrinkage
- Dyeable with **SikaBiresin® Colour Paste**

DESCRIPTION

Basis	Two component polyurethane system
Component A	**SikaBiresin® UR303**, isocyanate prepolymer, colourless-transparent
Component B	**SikaBiresin® UR302**, amine, reddish-transparent
Component B	**SikaBiresin® UR402**, amine, coloured-transparent
Component B	**SikaBiresin® UR419**, amine, brownish-transparent

PHYSICAL PROPERTIES

		Isocyanate (A)	Amine (B)	Amine (B)	Amine (B)
Components		**SikaBiresin® UR303**	**SikaBiresin® UR302**	**SikaBiresin® UR402**	**SikaBiresin® UR419**
Viscosity, 25 °C	mPa.s	~ 9,000	~ 85	~ 180	~ 200
Density	g/cm³	1.04	0.98	1.11	1.02
Mixing ratio A:B	in parts by weight	100	40	35	10
		Mixture			
Colour		Coloured-transparent*			
Viscosity, 25 °C	mPa.s	~ 3,800		~ 4,000	~ 8,000
Pot life, room temperature	min	20 – 25		~ 25	~ 15
Demoulding time	h	> 16		> 16	> 16
Curing time	d	~ 7		~ 7	~ 7

* dependent on raw materials the colour can differ without changing the mechanical properties

MECHANICAL PROPERTIES

approx. values

			SikaBiresin® UR302	SikaBiresin® UR402	SikaBiresin® UR419
Density	ISO 1183	g/cm³	1.03	1.05	1.05
Shore hardness	ISO 868	-	A 73	A 81	A 90
Tear strength	ISO 34	N/mm	15	18	30
Tensile strength	ISO 527	MPa	7	10	15
Elongation at break	ISO 527	%	550	400	400
Linear shrinkage	internal	%	0.02	0.1	-

PACKAGING UNITS

■ Isocyanate (A), **SikaBiresin® UR303**	200 kg; 20 kg; 10 kg; box with 6 x 1 kg
■ Amine (B), **SikaBiresin® UR302**	4 kg; box with 6 x 0.4 kg
■ Amine (B), **SikaBiresin® UR402**	7 kg; 1 kg
■ Amine (B), **SikaBiresin® UR419**	16 kg; 1.6 kg; box with 6 x 0,16 kg

PROCESSING DATA

- The material, processing and mould temperature must be at least 18 – 25 °C.
- 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.

STORAGE CONDITIONS

Shelf life	■ Isocyanate (A), **SikaBiresin® UR303**	12 months
	■ Amine (B), **SikaBiresin® UR302**	12 months
	■ Amine (B), **SikaBiresin® UR402**	12 months
	■ Amine (B), **SikaBiresin® UR419**	12 months
Storage temperature	■ Isocyanate (A), **SikaBiresin® UR303**	18 – 25 °C
	■ Amine (B), **SikaBiresin® UR302**	18 – 25 °C
	■ Amine (B), **SikaBiresin® UR402**	18 – 25 °C
	■ Amine (B), **SikaBiresin® UR419**	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
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