

PRODUCT DATA SHEET

SikaBiresin® UR595 (UR 5895) / UR505 (UR 5805)

POLYURETHANE CASTING ELASTOMERE – SHORE A 94 – COLD CURING

APPLICATIONS

- Polyurethane casting elastomer designed to produce semi-flexible parts or moulds.
- Hand casting, but also exists with short pot life for 2K machines applications. Please refer to SikaBiresin® UR595 L01 series PDS.

MAIN PROPERTIES

- Easy processing by hand or with 2K machine
- Good tear strength
- High impact resistance
- Quick setting at room temperature
- Available in 8 colors and 3 reactivities

DESCRIPTION

Basis	Two component polyurethane system
Component A	SikaBiresin® UR505 , isocyanate, straw yellow
Component B	SikaBiresin® UR595 , polyol, coloured

PHYSICAL PROPERTIES

		Isocyanate (A)	Polyol (B)
Components		SikaBiresin® UR505	SikaBiresin® UR595
Viscosity, 25 °C	mPa.s	450	1,500
Density, 25° C		1.21	1.19
Mixing ratio A:B	in parts by weight	55	100
	In parts by volume	54	100
		Mixture	
Colour		Coloured	
Viscosity, 25 °C	mPa.s	~ 1,000	
Pot life, 25° C, 155 g		Various	
Demoulding time at 23° C		12	
Demoulding time at 80° C	h	1	
Maximal casting thickness	mm	50	

REFERENCES	POT LIFE at 25° C on 155 g (min)
SikaBiresin® UR595 L06 BLUE	6
SikaBiresin® UR595 L10 BLUE	10
SikaBiresin® UR595 L06 LIGHT BLUE	6
SikaBiresin® UR 595 L06 DARK BLUE	6
SikaBiresin® UR595 L3,5 ORANGE	3.5
SikaBiresin® UR595 L3,5 LIGHT ORANGE	3.5
SikaBiresin® UR595 L06 GREEN	6
SikaBiresin® UR595 L06 WHITE	6
SikaBiresin® UR595 L06 YELLOW	6

MECHANICAL PROPERTIES

approx. values

Density	ISO 2781	g/cm ³	1.25
Shore hardness	ISO 868	Shore A1	A 94
Tensile strength	ISO 37	MPa	16
Tear strength	ISO 34	kN/m	64
BASHORE resilience	ASTM 2632	%	25
Elongation at break	ISO 37	%	400

THERMAL AND SPECIFIC PROPERTIES

approx. values, hardening conditions 12h at 80° C

Working temperature	-	°C	- 20 / + 70
Glass transition temperature	TMA Mettler	°C	< 0

PACKAGING UNITS

- | | |
|---|---|
| ■ Isocyanate (A), SikaBiresin® UR505 | 1025 kg / 225 kg / 11 kg |
| ■ Polyol (B), SikaBiresin® UR595 | 1025 kg / 205 kg / 20 kg net (according to colours please contact us) |

PROCESSING DATA

- The material, processing and model temperature should be at least 18 – 25 °C.
- Component B POLYOL must be stirred thoroughly before use.
- Mix ratio accuracy is 2% by weight.
- Could be mix by hand in appropriate container or with a 2K machine (check before with customer compatibility of the machine).
- Porous surfaces (wood-plywood, stone, plaster etc.) must be well sealed and dry before casting SikaBiresin® UR595
- Use of PUR foam plates with low to middle density is not advised in any cases.
- The compatibility of the sealing on PUR foam should be tested separately.
- We recommend wax based release agents to release SikaBiresin® UR595 from models. For more information, see Product Data Sheets of the release agents.
- Both components must be mixed thoroughly according to mixing ratio and poured immediately on the released model.
- Demoulding after one night at RT. Do not cure the PU at temperature >50°C.
- To achieve the highest properties, leave the mould at 23°C for 5 days before any use.
- To ensure a long lasting for concrete casting we provide under request a compatibility checking with the release agent for concrete used in production.

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STORAGE CONDITIONS

Shelf life	■ Isocyanate (A), SikaBiresin® UR505	9 months
	■ Polyol (B), SikaBiresin® UR595	12 months
Storage temperature	■ Isocyanate (A), SikaBiresin® UR505	18 – 25 °C
	■ Polyol (B), SikaBiresin® UR595	18 – 25 °C
Crystallization	■ After prolonged storage at low temperature, crystallization of Isocyanate (A) may occur.	
	■ This is easily removed by warming up for a sufficient time to a maximum of 60 °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.

Contact

SIKA DEUTSCHLAND GMBH
Stuttgarter Straße 139
72574 Bad Urach - GERMANY
Phone: +49 7125 940 492
Fax: +49 7125 940 401
E-Mail: tooling@de.sika.com
Website: www.sikaadvancedresins.de

SIKA AUTOMOTIVE FRANCE S.A.S.
ZI des Béthunes - 15, Rue de l'Equerre
95310 Saint-Ouen-l'Aumône
CS 40444
95005 Cergy Pontoise Cedex - FRANCE
Phone: +33 1 34 40 34 60
Fax: +33 1 34 21 97 87
E-Mail: advanced.resins@fr.sika.com
Website: www.sikaadvancedresins.fr

AXSON TECHNOLOGIES SPAIN, S.L.
C/Guardaagullles, 8 – P.I. Congost - 08520
Les Franqueses del Valles (Barcelona) - SPAIN
Phone: +34 93 225 16 20
Fax: +34 93 225 03 05
E-Mail: spain@axson.com
Website: www.sikaadvancedresins.es

AXSON ITALIA S.R.L.
Via Morandi 15
21047 Saronno (Va) – ITALY
Phone: +39 02 96 70 23 36
Fax: +39 02 96 70 23 69
E-Mail: axson@axson.it
Website: www.sikaadvancedresins.it

AXSON UK LTD
Unit 15 Studlands Park Ind. Estate
Newmarket Suffolk, CB8 7AU - UNITED KINGDOM
Phone: +44 1638 660 062
Fax: +44 1638 665 078
E-Mail: sales.uk@axson.com
Website: www.sikaadvancedresins.uk

SIKA AUTOMOTIVE SLOVAKIA S.R.O.
Tovarenska 49
953 01 Zlate Moravce - SLOVAKIA
Phone: +421 2 5727 29 33
Fax: +421 37 3000 087
E-Mail: SikaAdvancedResins@sk.sika.com
Website: www.sikaadvancedresins.com

SIKA ADVANCED RESINS US
30800 Stephenson Highway
Madison Heights, Michigan 48071 - USA
Phone: +1 248 588 2270
Fax: +1 248 616 7452
E-Mail: advanced.resins@us.sika.com
Website: www.sikaadvancedresins.us

SIKA AUTOMOTIVE EATON RAPIDS, INC.
1611 Hults Drive
Eaton Rapids, Michigan 48827 - USA
Phone: +1 517 663 81 91
Fax: +1 517 663 05 23
E-Mail: advanced.resins@us.sika.com
Website: www.sikaadvancedresins.us

SIKA AUTOMOTIVE MEXICO S.A. DE C.V.
Ignacio Ramirez #20 Despacho 202 Col.
Tabacalera C.P. 06030 CDMX - MEXICO
Phone: +52 55 5264 49 22
E-Mail: marketing@axson.com.mx
Website: www.sikaadvancedresins.mx

SIKA AUTOMOTIVE SHANGHAI CO. LTD.
N°53 Tai Gu Road
Wai Gao Qiao
Free Trade Zone, Pudong
200131 Shanghai - CHINA
Phone: +86 21 58 68 30 37
Fax: +86 21 58 68 26 01
E-Mail: marketing.china@axson.com
Website: www.sikaaxson.cn

Sika Ltd.
10 F, Shinagawa Intercity Tower B.
2-15-2 Konan, Minato-ku
Tokyo 108-6110 - JAPAN
Phone: +81 3 6433 2314
Fax: +81 3 6433 2102
E-Mail: advanced-resins@jp.sika.com
Website: www.jpn.sika.com

AXSON INDIA PVT. LTD.
Office n°8, Building Symphony C - 3rd Floor
Range Hills Road
Bhosale Nagar
Pune 411 020 - INDIA
Phone: +91 20 25560 710
Fax: +91 20 25560 712
E-Mail: info.india@axson.com
Website: www.sikaadvancedresins.in

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