BUILDING TRUST

PRODUCT DATA SHEET

SikaBiresin® SC175

EPOXY MODEL PASTE

APPLICATIONS

- Production of models and mock ups

MAIN PROPERTIES

- Light weight
- Good surface aspect
- Good behaviour on vertical substructure up to 30 mm
- High thermal resistance

DESCRIPTION

Basis	Two component epoxy system
Component A	**SikaBiresin® SC175**, epoxy resin, grey
Component B	**SikaBiresin® SC175**, amine, white
Repair solution	**SikaBiresin® SC175** (A) with **SikaBiresin® GC11** (B)

PHYSICAL PROPERTIES

		Resin (A)	Hardener (B)
Components		**SikaBiresin® SC175**	**SikaBiresin® SC175**
Viscosity, 25 °C	Pa.s	800	800
Density, 25 °C	g/cm³	0.60	0.62
Mixing ratio A : B	by weight	100	100
Mixing ratio A : B	by volume	100	100
		Mixture	
Colour		Light grey	
Viscosity, 25 °C	Pa.s	800	
Density, 23 °C	g/cm³	0.63	

MECHANICAL AND THERMAL PROPERTIES

(approx. values after 24 hours / 23 °C + 16 hours / 60 °C)

Shore hardness - 7 days at 23 °C - 24 hours at 60 °C	ISO 868	Shore D	D1 / D15 52 / 48 53 / 49
Flexural modulus	ISO 178	MPa	600
Flexural strength	ISO 178	MPa	13
Tensile modulus	ISO 527	MPa	650
Tensile strength	ISO 527	MPa	9
Elongation at break	ISO 527	%	2.9
Compressive strength at yield	ISO 604	MPa	13
Compressive modulus	ISO 604	MPa	450

THERMAL AND SPECIFIC PROPERTIES

(approx. values after 24 hours / 23 °C + 16 hours / 60 °C)

Glass transition temperature, Tg - 7 days at 23 °C - 16 hours at 60 °C	ISO 11359	°C	45 83
Coefficient of thermal expansion, 16 hours at 60 °C	ISO 11359	10^{-6} K^{-1}	70

EXOTHERMIC PEAK AND HARDENING TIME *

Thickness (mm)	Product temperature (°C)	Exothermic peak (hours/temperature)	Workability (hours)	Linear shrinkage (mm/m)
30	25	3 / 70	24	< 1
30	20	3.5 / 50	48	< 1

* Room temperature: 20 °C – 22 °C, polystyrene support

REPAIR SOLUTION

Repair Mixture		**SikaBiresin® SC175** (A) with **SikaBiresin® GC11** (B)
Colour		Grey
Mixing ratio A : B	by weight	100 : 20
Pot life, RT	60 g	10 – 15 minutes
Setting time, RT (workable)	3 mm thickness	270 minutes
Setting time, RT (workable)	10 mm thickness	90 minutes

PACKAGING UNITS

■ Resin (A), **SikaBiresin® SC175**	25 kg / 114 kg
■ Hardener (B), **SikaBiresin® SC175**	25 kg / 114 kg
■ Hardener (B), **SikaBiresin® GC11**	0.5 kg / 12 x 0.05 kg

PROCESSING DATA

- The material, processing and mold or master-model temperature shall be between 18 °C and 25 °C.
- During processing the dispensing nozzle must be maintained perpendicular to the surface on which the product is applied. Ensure the overlapping of the ribbons.
- On vertical areas it can be helpful to apply a thin coat of product with a spatula. This will help to reinforce the bonding on the substructure.
- For ceiling application we recommend 30 mm of maximum thickness.
- Note: Exothermic reactions mostly depend on the type of machine and on the working parameters such as: room temperature, insulating property of the substructure, the mixture's temperature (depending on the type of mixer: static or dynamic), the speed of mixing, output and on applied thickness.
- For dynamic mixing machine, please contact us for further information.
- For fast repair solution of surface defects on milled surfaces out of SikaBiresin® SC175 we recommend using A-component in mixture with SikaBiresin® GC11 (B). Pot life and setting time depend on mixture volume and applied layer thickness (see information above).
- Containers must be closed tightly immediately after use to prevent moisture ingress.
- Once opened the product shall be used up as soon as possible.
- Further post curing of the demolded part can improve the final mechanical properties.
- Depending on the geometry and weight of the part, it is recommended to use a conformer while post curing.

STORAGE CONDITIONS

Shelf life	■ Resin (A), **SikaBiresin® SC175**	12 months
	■ Hardener (B), **SikaBiresin® SC175**	12 months
	■ Hardener (B), **SikaBiresin® GC11**	12 months
Storage temperature	■ Resin (A), **SikaBiresin® SC175**	15 °C – 25 °C
	■ Hardener (B), **SikaBiresin® SC175**	15 °C – 25 °C
	■ Hardener (B), **SikaBiresin® GC11**	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 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 CH AG & Co KG
Business Unit Industry
Stuttgarter Straße 139
72574 Bad Urach
Phone: +49 7125 940-7692
E-Mail: industry@de.sika.com
Website: www.sika.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

Sika S.A.U.
Carretera de Fuencarral, 72
28108 Alcobendas (Madrid) - SPAIN
Phone: +34 916 572 375
E-Mail: pedidos.sika@es.sika.com
Website: esp.sika.com

Sika Italia S.p.A.
Via Luigi Einaudi 6
20068 Peschiera Borromeo (MI) - Italy
Phone. +39 02 54778111
Fax +39 02 54778 119
E-Mail: info@sika.it
Website: www.sika.it

Sika Limited
Head Office, Watchmead – Welwyn
Garden City – AL7 1BQ – United Kingdom
Phone: +44 1707 394444
E-Mail: industry-sales@uk.sika.com
Website: www.gbr.sika.com

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 Industry – Tooling, Resins and Marine
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.sikaindustry.com

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 MEXICANA SA de CV
Av. Gustavo Baz #309 Centrum Park
54060 Tlanepantla Estado de MEXICO
Phone: +52 442 238 5800
E-Mail: roman.octavio@mx.sika.com

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: industry@cn.sika.com
Website: www.sika.cn

Sika Japan Ltd.
Akasaka-K-Tower 7F, 1-2-7, Moto-Akasaka, Minato-ku,
Tokyo · Tokyo · Tokyo · 107-0051 · Japan
Phone: +81 3-6433-2101
Fax: +81 3 6433 2102
E-Mail: advanced-resins@jp.sika.com
Website: www.jpn.sika.com

SIKA INDIA PVT LTD,
Plot No. Pap-V-90/1,
Chakan Industrial Area,
Phase-II, Vasuli, Khed, PUNE,
Maharashtra – 410501
E-Mail: info.india@in.sika.com