BUILDING TRUST

PRODUCT DATA SHEET

SikaBiresin® RG50 RG530

Low pressure RIM system – simulation of rubber and soft PVC

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Properties		Component A SikaBiresin® RG50	Component B SikaBiresin® RG530
Chemical base		Polyol	MDI-based isocyanate
Color		Black	Amber
	mixed	Black	
Density		1.06 kg/l	1.23 kg/l
	cured	1.1 kg/l	
Mixing ratio	by weight	100 : 18	
	by volume	100 : 15	
Viscosity (CQP029-4)		1200 mPa·s	175 mPa·s
Pot life (CQP021-4)	at 23 °C	100 seconds	
Demolding time		15 minutes	
Curing time	at 23 °C	1 day	
Shore A hardness (CQP023-1 / ISO 868)		70 [A, B]	
Tensile strength (CQP036-2 / ISO 527)		5 MPa [A, B]	
Tensile elongation (CQP036-2 / ISO 527)		200 % [A, B]	
Tear strength (CQP045-1 / ISO 34)		9 N/mm [A, B]	
Shelf life		12 months	

CQP = Corporate Quality Procedure

[A] 60 °C mold temperature

[B] curing condition: after demolding 7 days at 23 °C

DESCRIPTION

SikaBiresin® RG50 RG530 is a very fast 2-component polyurethane low pressure RIM system for manufacturing of rubber like, flexible prototype parts.
The Product must be processed with an adequate equipment.

PRODUCT BENEFITS

- Simulation of rubber and soft PVC
- Good flow behavior
- Short demolding time
- Good tensile elongation

AREAS OF APPLICATION

SikaBiresin® RG50 RG530 is designed for manufacturing of rubber like, flexible prototype parts.
The product is also suitable for manufacturing of sealings, bellows and other rubber like moldings.
Its good flow behavior is well suited for the production of thin-walled parts with complex shapes, such as ventilation ducts or grid-shaped radiator panels, and parts with integrated reinforcement elements.
This product is suitable for experienced professional users only.

METHOD OF APPLICATION

Surface preparation

Surfaces must be clean, dry, and free from grease, oil and dust.
It is recommended to use wax-based release agents. For further information regarding Sika release agent consult the corresponding Product Data Sheet.

Mixing process

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.
Component A must be stirred thoroughly before use.
An agitator/stirring device for the A component and Silicagel filters for both components are required.
Both components must be mixed homogeneously respecting the defined mixing ratio.
Containers must be closed tightly immediately after use to prevent moisture ingress.
Once opened the Product shall be used as soon as possible.

Application

The material and processing temperature shall be between 18 °C and 25 °C.
The mold temperature shall be between 20 °C and 60 °C. Increased mold temperature results in a shorter demolding time.
SikaBiresin® RG50 RG530 is processed using 2-component low-pressure equipment. These equipment must be specifically set up for processing the parts to be manufactured.
The mixing process is performed by dynamic or static-dynamic mixing units.
The mold temperature has a significant influence on the mechanical and thermal properties of the final part. In case of lower mold temperature those properties may be improved by a post curing process.
Depending on the geometry and weight of the part, it is recommended to use a conformer while post curing.

STORAGE CONDITIONS

Both components must be stored at temperature between 15 °C and 25 °C in original unopened containers.

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 Industry.
Copies of the following publications are available on request:

- Safety Data Sheets

PACKAGING INFORMATION

SikaBiresin® RG50 (A)

Canister	20 kg

SikaBiresin® RG530 (B)

Bottle	0.975 kg
Canister	10 kg 20 kg
Drum	200 kg

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.

DISCLAIMER

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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