

## PRODUCT DATA SHEET

## SikaBiresin® RG52

Low pressure RIM system with good impact resistance – simulation of PE / PP

## TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

| Properties                                       | Component A<br>SikaBiresin® RG52 | Component B<br>SikaBiresin® KD100    |
|--------------------------------------------------|----------------------------------|--------------------------------------|
| Chemical base                                    | Polyol                           | MDI-based isocyanate                 |
| Color                                            | Black                            | Reddish-brown                        |
|                                                  | mixed                            | Black                                |
| Density                                          | 1.05 kg/l                        | 1.23 kg/l                            |
|                                                  | cured                            | 1.15 kg/l                            |
| Mixing ratio                                     | by weight                        | 100 : 54                             |
| Viscosity (CQP029-4)                             | 1600 mPa·s                       | 200 mPa·s                            |
| Pot life (CQP021-4)                              | at 23 °C                         | 55 seconds                           |
| Demolding time                                   |                                  | 5 minutes <sup>A</sup>               |
| Curing time                                      | at 23 °C                         | 1 day                                |
| Shore D hardness (CQP023-1 / ISO 868)            |                                  | 68 <sup>A, B</sup>                   |
| Tensile elongation (CQP036-2 / ISO 527)          |                                  | 45 % <sup>A, B</sup>                 |
| Tear strength (CQP045-1 / ISO 34)                |                                  | 28 MPa <sup>A, B</sup>               |
| Flexural strength (CQP027-2 / ISO 178)           |                                  | 24 MPa <sup>A, B</sup>               |
| Flexural modulus (CQP027-2 / ISO 178)            |                                  | 550 MPa <sup>A, B</sup>              |
| Impact resistance (CQP038-2 / ISO 179)           |                                  | 28 kJ/m <sup>2</sup> <sup>A, B</sup> |
| Heat deflection temperature (CQP030-1 / ISO 75B) |                                  | 70 °C <sup>A, B</sup>                |
| Shelf life                                       |                                  | 12 months                            |

CQP = Corporate Quality Procedure

<sup>A</sup>) 60 °C mold temperature<sup>B</sup>) curing condition: after demolding 7 days at 23 °C

## DESCRIPTION

SikaBiresin® RG52 is a very fast 2-component polyurethane low pressure RIM system for manufacturing of housings, coverings and car tuning parts.

The Product must be processed with an adequate equipment.

## PRODUCT BENEFITS

- Simulation of PE / PP with good impact resistance
- Good flow behavior
- Short demolding time
- Cured parts can be machined

## AREAS OF APPLICATION

SikaBiresin® RG52 is designed for manufacturing of housings, coverings and claddings for machines and electronic devices.

Its good mechanical properties make it particularly suitable for components in vehicle construction and car tuning, such as spoilers, front and side skirts, and engine coverings. 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® RG52 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® RG52 (A)

|         |       |
|---------|-------|
| Hobbock | 20 kg |
|---------|-------|

SikaBiresin® KD100 (B)

|          |         |
|----------|---------|
| Canister | 20 kg   |
| Drum     | 250 kg  |
| IBC      | 1200 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

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## PRODUCT DATA SHEET

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## Sika Deutschland CH AG & Co KG

Industry  
Stuttgarter Straße 139  
72574 Bad Urach  
Tel. +49 7125 940-7692  
verkauf.industry@de.sika.com  
www.sika.de

