

## Biresin® RG53 Fibre

### Low pressure RIM-system, filled with glass fibres

#### Areas of Application

- Manufacture of housings and coverings
- Manufacture of very impact resistant technical parts
- Manufacture of thin walled mouldings with complexe structure

#### Product Benefits

- Simulation of ABS with good impact resistance
- Fast curing with good flowability
- Short demoulding time
- Cured parts can be machined

#### Description

- Basis Two component PUR system
- Component A **Biresin® RG53 Fibre**, polyol, black
- Component B **Biresin® U5**, MDI-based isocyanate, brown

Processing Data		Component A	Component B
<b>Individual components</b>		<b>Biresin® RG53 Fibre</b>	<b>Biresin® U5</b>
Viscosity, 25°C	mPa.s	~ 6,000	~ 110
Density	g/cm³	1.2	1.23
Mixing ratio A : B	in parts by weight	100	60
		<b>Mixture</b>	
Potlife, RT	s	~ 50	
Demoulding time, RT	min	> 10	
Curing time, RT	d	3 - 5	

#### Physical Data (approx. values)

<b>Biresin® RG53 Fibre (A)</b>	with component B	<b>Biresin® U5</b>
Shore hardness	ISO 868	D 81
E-Modulus	ISO 178 MPa	1,730
Flexural strength	ISO 178 MPa	55
Tensile strength	ISO 527 MPa	35
Elongation at break	ISO 527 %	11
Impact resistance	ISO 179 kJ/m²	48
Heat distortion temperature	ISO 75B °C	63 / 125*

\* values after post curing: 4 h / 80°C + 2 h / 120°C

#### Packaging

Individual components	<b>Biresin® RG53 Fibre (A)</b> <b>Biresin® U5 (B)</b>	20 kg; 250 kg net 250 kg; 20 kg; 5 kg net
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## Processing

- The material and processing temperature must be 18 - 25°C, mould temperature at least 20°C.
- Before use component A must be stirred thoroughly.
- For processing a two-component dosage mixing machine is necessary which conforms to reactivity of resin and volume of casting parts.
- Machine vessel for component A must have a mixing unit and heating.
- Machine vessel for component B must be moisture tight, e. g. by installation of a silicagel filter.
- The resin and hardener components are to be mixed thoroughly and poured immediately into previously released moulds (e.g. with Sika® Liquid Wax-815 resp. Sika® Pasty Wax-818; for more information see product data sheet).
- Improved thermal stability of the demoulded mouldings can be obtained by post-curing.

## Storage

- Minimum shelf life of Biresin® RG53 Fibre (A) is 6 month and of Biresin® U5 (B) is 12 month under room conditions (18 - 25°C), when stored in original un-opened containers.
- After prolonged storage at low temperature, crystallisation 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 room temperature before use.
- Containers must be closed tightly immediately after use to prevent moisture ingress. The residual material needs to be used up as soon as possible.

## Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety related data.

## Disposal considerations

Product Recommendations: Must be disposed of in a special waste disposal unit in accordance with the corresponding regulations.

Packaging Recommendations: Completely emptied packagings can be given for recycling. Packaging that cannot be cleaned should be disposed of as product waste.

## Value Bases

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

## Legal Notice

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