

Biresin® RG56 Low pressure RIM-system

Areas of Application

- Manufacture of housings and coverings
- Manufacture of very impact resistant technical parts, e. g. tuning parts for cars
- Manufacture of thinwalled mouldings with complexe structure

Product Benefits

- Simulation of PE / PP and ABS with good impact resistance
- Fast curing with good flowability
- Short demoulding time
- Very abrasion resistant surface

Description

- Basis Two-component-PUR-system
- Resin **Biresin® RG56**, polyol, black, unfilled
- Hardener **Biresin® U5**, MDI-based isocyanate, brown, unfilled

Processing Data

Processing Data		Resin	Hardener
Individual components		Biresin® RG56	Biresin® U5
Viscosity, 25°C	mPas	approx. 2,900	approx. 110
Density	g/cm³	1.06	1.23
Mixing ratio resin to hardener	in parts by weight	100	80
		Mixture	
Potlife, RT	s	50	
Demoulding time, tool temperature 60°C	min	4 - 6	
Curing time, RT	d	approx. 1	

Physical Data (approx.-values)

Biresin® RG56 resin			with hardener	Biresin® U5
Processing temperatures			tool: 60°C, material: RT	
Density	ISO 1183	g/cm³	1.18	
Shore hardness	ISO 868	-	D 82	
E-Modulus	ISO 178	MPa	1,650	
Flexural strength	ISO 178	MPa	67	
Tensile strength	ISO 527	MPa	45	
Elongation at break	ISO 527	%	15	
Impact resistance	ISO 179	kJ/m²	60	
Heat distortion temperature	ISO 75B	°C	100 / 125*	

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

Packaging

Individual components	Biresin® RG56 resin Biresin® U5 hardener	20 kg net, others on request 250 kg; 17 kg; 4,25 kg net
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Processing

- The resin component must be stirred thoroughly before use.
- The material and processing temperature must be 18 - 25°C, mould temperature at least 20°C.
- For processing a two-component dosage mixing machine is necessary which conforms to reactivity of resin and volume of casting parts. A static-dynamic mixing unit is recommended.
- Machine vessel for resin component (part A - polyol) must have a mixing unit and heating.
- Machine vessel for hardener component (Part B - isocyanate) must be moisture tight, e. g. by installation of a silicagel filter.
- Prior to casting, ensure moulds are thoroughly released. If the application of silicone free release agents is necessary, Sika® Trennmittel 810 and 815 Quick or Sika® Trennwachs 818 (for more information see Technical Data Sheet) are recommended.

Storage

- Minimum shelf life is 12 months 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 regarding transportation, handling, storage and disposal of chemical products, users should refer to the actual Material Safety Data Sheets 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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