

Biresin® RG54 Neu Low pressure RIM-system

Areas of Application

- Manufacture of big housings
- Manufacture of impact resistant technical parts

Product Benefits

- Good flowability
- Very long potlife for big casting volumes
- Good abrasion resistance

Description

- Basis Two-component-PUR-system
- Resin **Biresin® RG54 Neu**, polyol, beige, unfilled
- Hardener **Biresin® U5**, MDI-based isocyanate, brown, unfilled

Processing Data		Resin	Hardener
Individual components		Biresin® RG58	Biresin® U5
Viscosity, 25°C	mPas	~ 1.600	~ 110
Density	g/cm³	1,05	1,23
Mixing ratio resin to hardener	in parts by weight	100	70
		Mixture	
Potlife, RT	min	~ 8	
Demoulding time, RT	h	2 - 8 (dependent on moulding thickness)	
Curing time, RT	d	~ 3	

Physical Data (approx.-values)

Biresin® RG54 Neu resin			with hardener	Biresin® U5
Density	ISO 1183	g/cm³		1.2
Shore hardness	ISO 868	-		D 80
E-Modulus	ISO 178	MPa		1,500
Flexural strength	ISO 178	MPa		60
Tensile strength	ISO 527	MPa		38
Elongation at break	ISO 527	%		26
Impact resistance	ISO 179/1eB	kJ/m²		100
Heat distortion temperature	ISO 75B	°C		50 / 65*
Lin. shrinkage, 2 h demoulding time	internal	%		0.40 - 0.50 (dependent on thickness)

* value after post curing: 4h / 80°C

Packaging

Individual components	Biresin® RG54 Neu resin	25 kg net
	Biresin® U5 hardener	250 kg; 17 kg; 4.25 kg net



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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