

Biresin® VG280

Vacuum Casting resin

Application

- Manufacture of very impact resistant housings, coverings and other mouldings
- Manufacture of thinwalled parts with complex structure

Properties

- Simulation of ABS and PVC
- Fast curing with good flowability
- Very stiff, very high impact resistance
- Dyeable with **Biresin®-Farbpasten**
- Potlife can be extended by **Biresin® G48 resin**

Description

- Basis Two-component-PUR-system
- Resin **Biresin® VG280**, polyol, beige, unfilled
- Hardener **Biresin® G55**, MDI-based isocyanate, yellowish-transparent, unfilled

Processing Data

individual components		Resin	Hardener
		Biresin® VG280	Biresin® G55
Viscosity, 25°C	mPas	approx. 1,200	approx. 250
Density	g/cm³	1.06	1.22
Mixing ratio	in parts by weight	80	100
Mixture			
Mixing viscosity, 25°C	mPas	approx. 600	
Potlife, 500 g / 20°C	min	4	
Demoulding time at 70°C mould temperature	min	60 - 90	
Curing time	d	1 - 3	

Physical Data (approx.-values)

Biresin® VG280 Harz		with hardener	Biresin® G55
Colour			yellowish-translucent
Density	ISO 1183	g/cm³	1.1
Shore hardness	ISO 868		D 84*
E-Modulus	ISO 178	MPa	2,800*
Flexural strength	ISO 178	MPa	120*
Tensile strength	ISO 527	MPa	75*
Elongation at break	ISO 527	%	7*
Impact resistance	ISO 179	kJ/m²	> 100*
Heat distortion temperature	ISO 75B	°C	80*
Linear thermal expansion coefficient α_T	DIN 53752	K ⁻¹	74 x 10 ⁻⁶
Linear shrinkage, at 4 - 5 mm thickness	internal	%	0.35*

* values after post curing: 1 h / 70°C

Tooling



Delivery

Individual components	Biresin® VG280 resin Biresin® G55 hardener	4 kg; 0.8 kg net 5 kg; 1 kg net
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Processing

- The material temperature must be 18 - 25°C.
- The resin component must be stirred thoroughly before use.
- Both components must be under vacuum for several minutes before mixing in right mixing ratio and poured into preheated moulds (70°C).
- After complete filling of the moulds, vacuum is switched off and moulds are placed in an oven at 70°C for curing until demoulding.
- Improved thermal stability of the demoulded mouldings can be obtained by thermal post curing

Storage

- Minimum shelf life is 6 month under room condition (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 sufficient time to a maximum of 70°C. Allow to cool to room temperature before use.
- Containers must be closed water tight immediately after use and prevented from moisture. The residual material has to be used up as soon as possible.

Precautions

For information and advice on the safe handling and storage of products, users should refer to the current Safety Data Sheet 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.

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 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 proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Technical Data Sheet for the product concerned, copies of which will be supplied upon request.

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