

## Biresin® VG280 Vacuum Casting resin

### Areas of Application

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

### Product Benefits

- 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		Resin	Hardener
Individual Components		<b>Biresin® VG280</b>	<b>Biresin® G55</b>
Viscosity, 25°C	mPas	approx. 1.200	approx. 250
Density	g/cm³	1.06	1.22
Mixing ratio resin to hardener	in parts by weight	80	100
		Mixture	
Mixed 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, RT	d	1 - 3	

### Physical Data (approx.-values)

<b>Biresin® VG280 Harz</b>			with hardener	<b>Biresin® G55</b>	
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*	
CTE value, $\alpha_T$	DIN 53752	K <sup>-1</sup>		74 x 10 <sup>-6</sup>	
Linear shrinkage, at 4 - 5 mm thickness	internal	%		0.35*	

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

### Packaging

Individual components	<b>Biresin® VG280 resin</b> <b>Biresin® G55 hardener</b>	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 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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Distributeur voor Nederland, België en Luxemburg: Scabro Composites  
Vliegveld Valkenburg Wassenaarseweg 75-3265 NL - 2223 LA Katwijk The Netherlands  
Tel: +31 (0) 71 4017246 Fax: +31 (0) 84 7402572 Email: info@scabro.com www.scabro.com