Technical Data Sheet
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SCABRO
Ideeën Krijgen Vorm

Tooling & Composites

Biresin® VG230
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
- Fast curing with good flowability
- 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® VG230**, polyol, beige, unfilled
- Hardener: **Biresin® G56**, MDI-based isocyanate, yellowish-transparent, unfilled

Processing Data		Resin	Hardener
Individual Components		**Biresin® VG230**	**Biresin® G55**
Viscosity, 25°C	mPas	approx. 2,200	approx. 250
Density	g/cm³	1.06	1.22
Mixing ratio resin to hardener	in parts by weight	90	100
		Mixture	
Mixed viscosity, 25°C	mPas	approx. 900	
Potlife, 500 g, 20°C	min	4	
Demoulding time at 70°C mould temperature	min	60	
Curing time, RT	d	1 - 3	

Physical Data (approx.-values)			
Biresin® VG230 Harz	with hardener		**Biresin® G55**
Colour			yellowish-translucent
Density	ISO 1183	g/cm³	1.1
Shore hardness	ISO 868		D 82*
E-Modulus	ISO 178	MPa	2,300*
Flexural strength	ISO 178	MPa	90*
Tensile strength	ISO 527	MPa	50*
Elongation at break	ISO 527	%	15*
Impact resistance	ISO 179	kJ/m²	> 100*
Heat distortion temperature	ISO 75B	°C	70*
CTE, α_T	DIN 53 752	K^{-1}	110 x 10^{-6}

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

Packaging

Individual components	**Biresin® VG230** resin	4.5 kg; 0.9 kg net
	Biresin® G55 hardener	5 kg; 1 kg net

Processing

- The resin component must be stirred thoroughly before use.
- The processing temperature of resin component must be 20 - 35°C and the hardener component at least
- 20°C. 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.

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.

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