

Biresin® G38 Heat-resistant EP Casting resin, filled

Areas of Application

- Manufacture of heat resistant moulds, e. g. vacuumforming moulds
- Casting of heat resistant backfillings of foundry patterns
- Casting of heat resistant mouldings

Product Benefits

- Good flowability and good degassing
- Casting thickness up to 40 mm
- Demoulding without heat treatment
- Only low shrinkage
- Good mechanical properties, at elevated temperatures too
- Increasing of good mechanical properties after post curing
- Cured mouldings mechanically workable

Description

- Basis Two-component-epoxy-system
- Resin **Biresin® G38**, epoxy resin, grey, filled
- Hardener **Biresin® G38**, amine, amber, unfilled

Processing Data

Processing Data		Resin	Hardener
Individual components		Biresin® G38	Biresin® G38
Viscosity, 25°C	mPas	approx. 40.000	approx. 200
Density	g/ml	1.86	0.96
Mixing ratio resin to hardener	in parts by weight	100	7
Mixture			
Mixed viscosity, 25°C	mPas	approx. 11.000	
Potlife, 500 g, RT	min	120	
Demoulding time, RT, without post curing	h	16 - 24	

Physical Data (approx.-values)

Biresin® G38 resin		with hardener	Biresin® G38	
Curing conditions		time temperature	14 d RT	4 h + 2 h 60°C 100°C
Density	ISO 1183	g/cm³	1.8	
Shore hardness	ISO 868	-	D 88	D 90
Flexural strength	ISO 178	MPa	51	68
Compressive strength	ISO 604	MPa	94	112
Impact resistance	ISO 179	kJ/m²	5	8
Heat distortion temperature	ISO 75B	°C	54	> 130
Linear shrinkage	internal	%	0.08	
CTE value, α_T	DIN 53 752	K ⁻¹	35-40 x 10 ⁻⁶	

Packaging

Individual components	Biresin® G38 resin	10 kg; 5 kg net
	Biresin® G38 hardener	0.7 kg net

Processing

- The material temperature must be 18 - 25°C.
- The resin component must be mixed thoroughly before use.
- Take care that resin and hardener is mixed thoroughly without air entrapment.
- The resin mix can be poured, beginning at the lowest point into previously released moulds (e. g. with Sika® Trennmittel 810, 815 Quick resp. Sika® Trennwachs 818, for more information see Technical Data Sheet).
- For cleaning of cured mouldings from wax residues we recommend Sika® Reinigungsmittel 5. Before application of other cleaners test their compatibility with resin.

Storage

- Minimum shelf life of Biresin® G38 resin is 12 month and of Biresin® G38 hardener 24 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 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.

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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