

Biresin® G49 EP-Casting resin, impact resistant

Areas of Application

- Manufacture of impact resistant moulds and mouldings
- Production of prototype parts (similar ABS), control castings and housings in model making, automotive and appliances construction, electronics, machine and office equipment construction and for instruments

Product Benefits

- Good flowability
- Good impact resistance, stiffness and surface hardness
- Good true-to-size properties
- Dyeable with **Biresin®-Farbpasten**
- With hardener **Biresin® L80R** for casting thickness up to 6 mm
- With hardener **Biresin® L80** for casting thickness up to 20 mm
- With hardener **Biresin® P7** (mixing ratio 100:20, potlife 15 - 20 min) as impact resistant gelcoat or for gluing of **SikaBlock®** board materials

Description

- Basis Two-component-epoxy-system
- Resin **Biresin® G49**, epoxy resin, colourless, unfilled
- Hardener **Biresin® L80**, amine, colourless-transparent, unfilled, low odour
- Hardener **Biresin® L80R**, amine, colourless, unfilled
- Hardener **Biresin® P7**, amine, yellowish, unfilled, pasty

Processing Data		Resin	Hardener	
Individual components		Biresin® G49	Biresin® L80	Biresin® L80R
Viscosity, 25°C	mPas	~ 11,000	~ 1.200	~ 620
Density	g/ml	1.12	1.0	1.02
Mixing ratio	in parts by weight	100	36	36
Mixtures				
Mixed viscosity, 25°C	mPas		~ 3,000	~ 3,000
Potlife, 500 g, RT	min		40	35
Demoulding time, RT	h		24	12 - 16

Physical Data (approx.-values)

Biresin® G49 resin		to hardener	Biresin® L80	Biresin® L80R
Density	ISO 1183	g/cm³	1.1	
Shore hardness	ISO 868	-	D 74	D 78
E-Modulus	ISO 178	MPa	2,400	2,700
Flexural strength	ISO 178	MPa	80	84
Compressive strength	ISO 604	MPa	70	77
Tensile strength	ISO 527	MPa	44	43
Impact resistance	ISO 179	kJ/m²	> 27	> 27
Heat distortion temperature	ISO 75B	°C	67*	67*
Linear shrinkage	internal	%	0.05	0.05

* values after post curing: 2 h / 80°C

Packaging

Individual components	Biresin® G49 resin	25 kg; 1 kg net
	Biresin® L80R hardener	15 kg; 5 kg net
	Biresin® L80 hardener	15 kg; 5 kg; 1.25 kg; 0.36 kg net
	Biresin® P7 Härter	0.5 kg net

Processing

- The material temperature must be 18 - 25°C.
- 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® G49 resin is 24 month, of Biresin® L80R hardener, Biresin® L80 hardener and Biresin P7 hardener 12 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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