

PRODUCT DATA SHEET

SikaBiresin[®] F60 L10 (Topcast 60 L)

UNFILLED FASTCAST RESIN WITH MULTI PURPOSE APPLICATIONS – POT LIFE 7 – 8'

APPLICATIONS

- Casting of models, core boxes, negatives, checking fixtures and medium-sized parts
- Bonding of design and styling boards
- Production of decorative and handcraft articles with high reproduction accuracy
- Casting in thin and thick layers
- Applicable filled and unfilled

MAIN PROPERTIES

- Multipurpose application
- Low viscosity
- High filler content possible
- Low shrinkage and high dimensional stability
- Very good flowability and long pot life
- Very high wetting capacity of the fillers
- Very good mechanical workability

DESCRIPTION

Basis	Two component polyurethane system
Component A	SikaBiresin[®] F60 L10 , polyol, unfilled, off-white
Component B	SikaBiresin[®] F60 , MDI-based isocyanate, unfilled, dark-amber
Filler	RZ 30150 / TE-Füller , aluminum hydroxide powder, white

PHYSICAL PROPERTIES

		Polyol (A)	Isocyanate (B)	Filler
Components		SikaBiresin® F60 L10	SikaBiresin® F60	RZ 30150 / TE Filler
Viscosity, 25 °C	mPa.s	ca. 40	ca. 200	not measurable
Density	g/cm ³	ca. 1.00	ca. 1.22	ca. 2.4
Mixing ratio A:B	in parts per weight	100	50	150
Mixing ratio A:B	in parts by volume	100	60	not measured
Mixture				
Colour		beige		beige
Viscosity, 25 °C	mPa.s	ca. 90		ca. 1,300
Potlife, 225 g, 25 °C		7 – 8		
Potlife, 550 g	min			12 – 16
Demoulding time, 25 °C				
- 10 mm thickness	min	ca. 90		
- 100 mm thickness				ca. 90

MECHANICAL PROPERTIES

approx. values; values after post curing 16 h / 70 °C

Density, 23 °C	ISO 2781	g/cm ³	1.08	1.60
Shore hardness	ISO 868	-	D 72	D 81
Flexural modulus	ISO 178	MPa	1,250	2,800
Flexural strength	ISO 178	MPa	50	50
Impact resistance	ISO 179	kJ/m ²	16	not measured
Linear shrinkage				
- 4 mm thickness	Internal test	%	0.17*	
- 50 mm thickness				0.35*

* values after post curing: 7 d, room temperature

THERMAL AND SPECIFIC PROPERTIES

approx. values; values after post curing 16 h / 70 °C

Glass transition temperature	ISO 11359	°C	100	95**
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** values after post curing: 72 h / 70 °C

PACKAGING UNITS

■ Polyol (A), SikaBiresin® F60 L10	9 kg
■ Isocyanate (B), SikaBiresin® F60	4.5 kg
■ Filler, RZ 30150 / TE-Füller	25 kg

PROCESSING DATA

- The material, processing and mould temperature must be at least 18 – 25 °C.
- Both components must be shaken well before use.
- Recommended release agents are Sika® Liquid Wax-815 or Sika® Pasty Wax-818. For more information, see Product Data Sheets of the release agents.
- Pay attention to dry conditions and dry mould surfaces while processing.
- Porous surfaces have to be well sealed before.
- Both components have to be mixed thoroughly with a spatula or slow-running stirrer according to mixing ratio.
- If fillers are used, mix them thoroughly into the A component or half in each component before mixing the components.
 - 150 % maximum with RZ 30150 / TE Filler or aluminum powder
- Afterwards the mixture must be poured into the released mould with beginning at the lowest point.
- Further post curing of the demoulded part can improve the final mechanical properties.
- Depending on the geometry and weight of the part, it is recommended to use a conformer while post curing.
- For cleaning the final part from release agent residues, we recommend Sika® Reinigungsmittel-5. Before use of other cleaners, compatibility must be tested.
- Before overpainting, the parts have to be grinded or sandblasted. A polyurethane paint is recommended.

STORAGE CONDITIONS

Shelf life	<ul style="list-style-type: none">■ Polyol (A), SikaBiresin® F60 L10 12 months■ Isocyanate (B), SikaBiresin® F60 12 months■ Filler, RZ 30150 / TE Filler 24 months
Storage temperature	<ul style="list-style-type: none">■ Polyol (A), SikaBiresin® F60 L10 15 – 25 °C■ Isocyanate (B), SikaBiresin® F60 15 – 25 °C■ Filler, RZ 30150 / TE Filler 15 – 25 °C
Opened packagings	<ul style="list-style-type: none">■ Containers must be closed tightly immediately after use to prevent moisture ingress.■ The residual material needs to be used up as soon as possible.

FURTHER INFORMATION

The information herein is offered for general guidance only. Advice on specific applications is available on request from the Technical Department of Sika Advanced Resins. Copies of the following publications are available on request: Safety Data Sheets

BASIS OF PRODUCT DATA

All technical data stated in this document are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

HEALTH AND SAFETY INFORMATION

For information and advice regarding transportation, handling, storage and disposal of chemical products, users shall refer to the actual Safety Data Sheets containing physical, ecological, toxicological and other safety-related data.

LEGAL NOTICE

The information, and, in particular, the recommendations relating to the application and enduse 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 accordance with Sika's recommendations. 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 user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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