

PRODUCT DATA SHEET

SikaBiresin® F230 (F23-1)

FILLED FASTCAST RESIN WITH VERY HIGH SURFACE FINISHING – POT LIFE 4'25'' – 5'25''

APPLICATIONS

- Manufacturing of tools for small to medium series, thermoforming tools, checking and positioning fixtures as well as prototype parts
- Manufacturing of decorative applications when plaster aspect is needed (e.g. furniture ornaments, statues, bas reliefs)
- Any type of parts or tools with glossy aspect

MAIN PROPERTIES

- Very good surface aspect
- Low shrinkage
- Phthalate free
- Easy to carve, sand and polish
- Gloss recovering with polishing paste
- REACH and RoHS compliant

DESCRIPTION

Basis	Two components polyurethane system
Component A	SikaBiresin® F230 , polyol, filled, white
Component B	SikaBiresin® F230 , MDI-based isocyanate, unfilled, translucent-yellow

PHYSICAL PROPERTIES

		Polyol (A)	Isocyanate (B)
Components		SikaBiresin® F230	SikaBiresin® F230
Viscosity, 25 °C	mPa.s	~ 2,900	~ 40
Density	g/cm³	1.64	1.21
Mixing ratio A:B	in parts by weight	100	20
		Mixture	
Colour		white	
Viscosity, 25 °C	mPa.s	~ 900	
Pot life, 25 °C, 240 g	min	~ 4'25'' – 5'25''	
Demoulding time, 25 °C, 10 mm thickness	min	~ 30	
Maximum casting thickness	mm	50	

MECHANICAL PROPERTIES

approx. values; values after post curing 7 d / 23 °C

Density, 23 °C	ISO 2781	g/cm ³	1.58
Shore hardness	ISO 868	-	D 80
Flexural modulus	ISO 178	MPa	3,200
Flexural strength	ISO 178	MPa	47
Tensile strength	ISO 527	MPa	30
Compressive strength at yield	ISO 604	MPa	63
Linear shrinkage, 1000 x 50 x 10 mm	Internal test	mm/m	2

THERMAL AND SPECIFIC PROPERTIES

approx. values

Glass transition temperature	ISO 11359	°C	60
Glass transition temperature	ISO 11359	°C	107*

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

PACKAGING UNITS

- | | |
|--|-------------------|
| ■ Polyol (A), SikaBiresin® F230 | 6 x 1 kg / 5 kg |
| ■ Isocyanate (B), SikaBiresin® F230 | 6 x 0.2 kg / 1 kg |

PROCESSING DATA

- The material, processing and mould temperature should be at least 18 – 25 °C.
- Component A - Polyol - must be stirred thoroughly before use.
- Recommended release agents are wax based release agents from Sika.
- 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 according to mixing ratio and poured immediately 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.

STORAGE CONDITIONS

Shelf life	■ Polyol (A), SikaBiresin® F230	6 months
	■ Isocyanate (B), SikaBiresin® F230	6 months
Storage temperature	■ Polyol (A), SikaBiresin® F230	15 – 25 °C
	■ Isocyanate (B), SikaBiresin® F230	15 – 25 °C
Opened packagings	■ 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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