

## PRODUCT DATA SHEET

# SikaBiresin<sup>®</sup> F46 (Biresin<sup>®</sup> G46)

FILLED PUR CASTING RESIN WITH LONG POTLIFE FOR CASTING OF THICK SECTIONS – POT LIFE 40´

## APPLICATIONS

- Manufacture of master and core models, negatives and foundry patterns
- For control mouldings and copy models

## MAIN PROPERTIES

- Low odour
- Good flowability and good degassing
- Casting of thick sections and true-to-size curing
- Long pot life and low reaction temperature
- Improvement of good mechanical properties after post curing 4 – 8 h at 70 °C or during heat influence at working
- Cured mouldings mechanically workable

## DESCRIPTION

Basis	Two component polyurethane system
Component A	<b>SikaBiresin<sup>®</sup> F46</b> , polyol, filled, beige
Component B	<b>SikaBiresin<sup>®</sup> F46</b> , MDI-based isocyanate, unfilled, brown-transparent

## PHYSICAL PROPERTIES

		Polyol (A)	Isocyanate (B)
Components		<b>SikaBiresin<sup>®</sup> F46</b>	<b>SikaBiresin<sup>®</sup> F46</b>
Viscosity, 25 °C	mPa.s	~ 20,000	~ 200
Density	g/cm <sup>3</sup>	1.8	1.22
Mixing ratio A:B	in parts by weight	100	25
		Mixture	
Colour		beige	
Viscosity, 25 °C	mPa.s	~ 3,000	
Pot life, room temperature, 200 g	min	~ 40	
Demoulding time, room temperature	h	~ 16 – 24	

## MECHANICAL PROPERTIES

approx. values

Density	ISO 1183	g/cm <sup>3</sup>	1.7
Shore hardness	ISO 868	-	D 87
Flexural modulus	ISO 178	MPa	6,500
Flexural strength	ISO 178	MPa	65
Tensile strength	ISO 527	MPa	25
Elongation at break	ISO 527	%	2
Compressive strength	ISO 604	MPa	110
Impact resistance	ISO 179	kJ/m <sup>2</sup>	6
Linear shrinkage	Internal test	%	0.03 – 0.05

## THERMAL AND SPECIFIC PROPERTIES

approx. values

Heat deflection temperature	ISO 75B	°C	80
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## PACKAGING UNITS

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|---|---------------|
| ■ Polyol (A), <b>SikaBiresin® F46</b>     | 10 kg / 20 kg |
| ■ Isocyanate (B), <b>SikaBiresin® F46</b> | 2.5 kg        |

## PROCESSING DATA

- The material, processing and mould temperature should be at least 18 – 25 °C.
- Component A must be stirred thoroughly before use. Component B 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 according to mixing ratio and poured immediately into the released mould with beginning at the lowest point.
- 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	■ Polyol (A), <b>SikaBiresin® F46</b>	12 months
	■ Isocyanate (B), <b>SikaBiresin® F46</b>	12 months
Storage temperature	■ Polyol (A), <b>SikaBiresin® F46</b>	18 – 25 °C
	■ Isocyanate (B), <b>SikaBiresin® F46</b>	18 – 25 °C
Crystallization	■ After prolonged storage at low temperature, crystallization 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.	
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 end use 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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