

PRODUCT DATA SHEET

SikaBiresin® L100

Laminating resin for multi-purpose applications

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Properties	SikaBiresin® L100 (A)	SikaBiresin® L100 (B)
Chemical base	Epoxy resin, unfilled	Amine, unfilled
Color	Yellowish-transparent	Colorless-transparent
Mixing ratio	by weight 100 : 12	
Density	1.14 kg/l	0.98 kg/l
	cured 1.2 kg/l	
Viscosity (CQP538-2 / BROOKFIELD LVT)	1250 mPa·s	40 mPa·s
	mixed 580 mPa·s	
Pot life (CQP021-3 / Gel Timer TECAM)	500 g at 23 °C 55 minutes	
Demolding time	12 hours	
Shore D hardness (CQP023-1 / ISO 868)	83 ^{A, B}	
Flexural strength (ISO 178)	95 MPa ^A 107 MPa ^B	
Flexural modulus (CQP027-2 / ISO 178)	2420 MPa ^A 2630 MPa ^B	
Tensile strength (CQP036-1 / ISO 527)	69 MPa ^A 74 MPa ^B	
Impact resistance (CQP038-2 / ISO 179)	10 kJ/m ² ^A 14 kJ/m ² ^B	
Compressive strength (CQP028-5 / ISO 604)	104 MPa ^A 106 MPa ^B	
Heat deflection temperature (CQP030-1 / ISO 75B)	51 °C ^A 70 °C ^B	
Shelf life	24 months	12 months

CQP = Corporate Quality Procedure

^{A)} curing condition: 23 °C for 14 days^{B)} post curing: 80 °C for 2 hours

DESCRIPTION

SikaBiresin® L100 is a laminating resin for multi-purpose applications, e.g. manufacturing of robust laminates, laminated foam and backstampings.

SikaBiresin® L100 is available with various hardeners to obtain different mechanical properties. For further information refer to the respective Product Data Sheet.

PRODUCT BENEFITS

- Multi-purpose applications
- Good soaking and wetting properties
- Good processability with high filler content

AREAS OF APPLICATION

SikaBiresin® L100 is designed for manufacturing of precise, robust laminates with glass and/or carbon fibers.

It is suitable for producing laminated foam and compression molds.

The material can be applied for backstampings of molds, models, negatives and tools as well as it can be used as a coupling layer.

This product is suitable for experienced professional users only.

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SikaBiresin® L100

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METHOD OF APPLICATION

Surface preparation

The material and processing temperature shall be between 18 °C and 25 °C. Make sure the mold or master model is clean, dry, dust and grease free. If mold or master-model surface is porous, it must be properly sealed prior applying the release agent. Wax-based release agents are recommended. For further information regarding Sika release agent consult the corresponding Product Data Sheet.

Mixing process

Prior to use check the material for homogeneity and crystallization. After prolonged storage at low temperature, crystallization of components may occur. This process can be reversed by heating the affected component to a maximum of 70 °C until the crystals have disappeared. Allow to cool down to requested processing temperature before use. Prior to mixing, component A must be stirred thoroughly. Both components must be mixed homogeneously respecting the defined mixing ratio. The mixing can be performed with a spatula or a machine stirrer at ≤ 300 rpm. To ensure a homogeneous and complete mixing, pour the mixed product into a new container and mix again shortly, considering the pot life. Containers must be closed tightly immediately after use to prevent moisture ingress. Once opened the Product shall be used as soon as possible.

Application

The fabric must be suitable for the use of epoxy resins. For laminates glass fibres with binding twill are better than binding cloth because of its better suppleness.

SikaBiresin® L100 is applied to the selected fiber fabric (e.g. glass fiber mats) using a brush or hand roller. The reinforcing fibers are laid in layers "wet on wet". The fibers must be impregnated with the resin without air entrapments. Entrapped air is expelled from the inside to the outside. If the surface needs to be further laminated or bonded, it is recommended to use a peel ply. It is recommended to lay a balanced laminate to avoid deformation during demolding. Further post curing of the demolded 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.

STORAGE CONDITIONS

Both components must be stored at temperature between 15 °C and 25 °C in original unopened containers.

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 Industry. Copies of the following publications are available on request:

- Safety Data Sheets

PACKAGING INFORMATION

SikaBiresin® L100 (A)

Hobbock	20 kg 50 kg
Drum	220 kg

SikaBiresin® L100 (B)

Canister	2.4 kg
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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.

DISCLAIMER

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.

