BUILDING TRUST

PRODUCT DATA SHEET

SikaBiresin® UR563 L20

Elastomeric casting resin for mold making

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Properties		Component A SikaBiresin® UR503	Component B SikaBiresin® UR563 L20
Chemical base		Isocyanate	Polyol
Color		Amber	Grey
	mixed	Grey	
Density		1.16 kg/l	1.33 kg/l
	cured	1.31 kg/l	
Mixing ratio	by weight	35 : 100	
Viscosity (CQP029-4)		2000 mPa·s	4700 mPa·s
	mixed	2500 mPa·s	
Pot life (CQP021-3 / Gel Timer TECAM)	135 g at 23 °C	20 minutes	
Demolding time		24 hours	
Curing time	at 23 °C	5 days	
Casting thickness		up to 100 mm	
Shore A hardness (CQP023-1 / ISO 868)	A1	65 [A]	
	A15	63 [A]	
Tensile strength (CQP036-6 / ISO 37)		4.8 MPa [A]	
Tear strength (CQP045-1 / ISO 34)		16.5 kN/m [A]	
Elongation at break (CQP 036-6 / ISO 37)		670 % [A]	
Linear shrinkage (CQP014-5)	1020 x 140 x 100 mm	3.8 mm/m	
Glass transition temperature TMA (CQP053-1 / ISO 11359)		0 °C [A]	
Service temperature		-40 – 70 °C	
Shelf life		6 months	12 months

CQP = Corporate Quality Procedure

[A] curing condition: 2 hours in a mold at 40 °C + 70 °C for 12 hours

DESCRIPTION

SikaBiresin® UR563 L20 is a 2-component polyurethane elastomeric casting resin for mold making.

PRODUCT BENEFITS

- High chemical resistance
- Casting thickness up to 100 mm
- Good flow behavior
- Solvent and mercury free
- Good mechanical properties

AREAS OF APPLICATION

SikaBiresin® UR563 L20 is designed for production of flexible molds and tools for concrete industry.
The Product is especially well suited for large serie production.
This product is suitable for experienced professional users only. Tests under actual processing conditions and with additional materials such as coatings and release agents must be performed to proof material compatibility.

METHOD OF APPLICATION

Surface preparation

The material, processing and mold or master-model temperature shall be between 18 °C – 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 sealed prior applying the release agent.
It is recommended to use wax-based release agents. 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 easily reversed by heating the affected component to a maximum of 60 °C until the crystals have disappeared. Allow to cool down to requested processing temperature before use.
Consider, pot life is affected by temperature and mixed quantity.
If the Product needs to be pigmented, max. 1 % of SikaBiresin® Color Paste shall be added.
Add the pigment in component B and stir to homogenize prior mixing with component A.
Both components must be mixed thoroughly respecting the defined mixing ratio. The mixing can be performed with a spatula or a machine stirrer at ≤ 300 rpm.
To secure homogeneous and complete mixing, pour the mixed product into another container and mix again shortly, considering the pot life.
Note: Both containers must be closed tightly immediately after use to prevent moisture ingress.
Once opened the Product shall be used as soon as possible.

Application

Immediately after mixing pour the Product into the mold starting at the deepest point.
Demolding time may vary depending on casted thickness and room temperature.
To achieve the highest performance, leave the elastomeric mold at a temperature ≥ 23 °C for 5 days before using it.

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® UR503 (A)

Canister	2.5 kg 5 kg
Drum	227.5 kg

SikaBiresin® UR563 L20 (B)

Pail	14.3 kg
Drum	200 kg

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.

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