

PRODUCT DATA SHEET

SikaBiresin® TD150

Epoxy casting resin with high transparency suitable for deep pouring

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Properties	SikaBiresin® TD150 (A)	SikaBiresin® TD150 (B)
Chemical base	Epoxy resin, unfilled	Amine, unfilled
Color	Bluish-transparent	Transparent
	mixed	Transparent
Mixing ratio	by weight by volume	100 : 45 100 : 50
Density	1.12 kg/l	0.98 kg/l
Viscosity (CQP029-4)	500 mPa·s	100 mPa·s
	mixed	300 mPa·s
Pot life (CQP021-4)	depending on thickness at > 23 °C depending on thickness at < 23 °C	5 hours 15 hours
Casting thickness	25 – 80 mm	
Shore D hardness (CQP023-1 / ISO 868)	80 ^A	
Flexural modulus (CQP027-2 / ISO 178)	2100 MPa ^A	
Elongation at maximum strength (CQP036-2 / ISO 527)	4.5 % ^A	
Glass transition temperature TMA (CQP053-1 / ISO 11359)	39 °C ^A 47 °C ^B	
Shelf life	12 months	

CQP = Corporate Quality Procedure

^A) curing condition: 23 °C for 7 days^B) post curing: 16 hours at 50 °C

DESCRIPTION

SikaBiresin® TD150 is an epoxy casting resin with high transparency suitable for deep pouring designed for artistic and decorative applications.

PRODUCT BENEFITS

- High transparency
- Single pour casting up to 45 mm at 20 °C
- Low viscosity
- Self-degassing behaviour
- Good UV resistance

AREAS OF APPLICATION

SikaBiresin® TD150 is used in applications such as furniture, art, and decoration to create deep-pour, transparent castings that are UV-resistant, which is very suitable for river tables, embedded objects, mock-ups, and trophies.

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

Increasing casting layer thickness requires a correspondingly lower ambient temperature. The maximum allowable layer thickness is a function of the ambient temperature. The table below indicates the required temperature for a certain layer thickness measured with a 350 mm x 300 mm plate.

Room temperature	Thickness
17 °C	80 mm
20 °C	45 mm
23 °C with fan	70 mm
23 °C	35 mm
26 °C	30 mm
29 °C	25 mm

Table 1: Casting thickness as function of temperature

Surface preparation

For products with long pot life and low viscosity the casting frame must be perfectly tight. In case of simple and flat surfaces, a tape could be used as casting frame. Apply the tape around the border with the desired offset and make sure it is tight. The resin usually does not adhere to the tape.

A liquid or pasty wax could be used to prevent adhesion on models and supports.

Wood or other porous surfaces of models must be sealed before casting process. Quick setting epoxy or a varnish could be used but these sealers must be cured prior to the casting process.

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 70 °C until the crystals have disappeared. Allow to cool down to requested processing temperature before use.

Mixing can be done by hand or with an electric mixer. Mix carefully to minimize air entrapment.

To secure homogeneous and complete mixing, pour the mixed product into another container and mix again shortly, considering the pot life.

Prior to casting the mix can be left for self-degassing for 15 – 30 minutes. Alternatively, can the mix be evacuated in a vacuum chamber.

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

An adequate ambient temperature is the most important parameter to successfully cast SikaBiresin® TD150. There is a link between ambient temperature, volume and layer thickness. Excessive thickness or higher ambient temperature may induce high exothermic reaction leading to yellowing, cracks or uneven surface once cured. If increased casting thicknesses are required, it is recommended to ensure a low ambient temperature and to cast the material immediately after mixing and degassing.

The following diagrams illustrate the exothermic temperature development over time at different room temperatures for SikaBiresin® TD150.

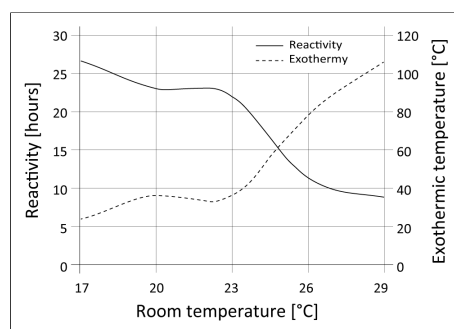


Diagram 1: casted in plastic cup – 630 g, Ø 85 mm, height 90 mm

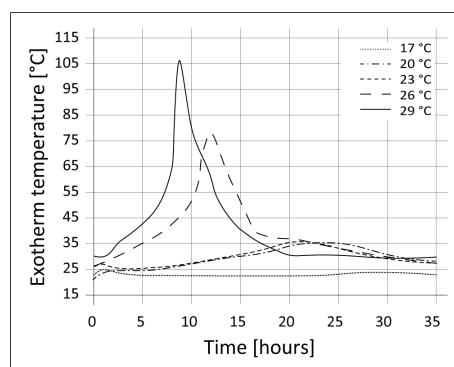


Diagram 2: casted in plastic cup – 630 g, Ø 85 mm, height 90 mm

Above 4 kg volume and a casting height of more than 40 mm it is recommended to decrease the exothermic temperature by using a fan or reducing the room temperature.

After casting and some relaxation time the bubbles close to the surface can easily be removed with a hot airstream. Use a hot air gun and sweep the surface at 15 – 20 cm distance avoiding to treat single spots (always sweeping).

To get on flat surfaces best transparent and shiny results, a sanding and polishing process may be necessary. Water sandpaper is recommended. Use appropriate tools to avoid heat on the SikaBiresin® TD150 while polishing.

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® TD150 (A)

Canister	5 kg
Drum	220 kg
IBC	1000 kg

SikaBiresin® TD150 (B)

Canister	2.25 kg
Drum	200 kg
IBC	950 kg
	1000 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.

PRODUCT DATA SHEET

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Sika Deutschland CH AG & Co KG
Industry
Stuttgarter Straße 139
72574 Bad Urach
Tel. +49 7125 940-7692
verkauf.industry@de.sika.com
www.sika.de

