

PRODUCT DATA SHEET

SikaBiresin® TD150 – TD165

EPOXY CASTING RESIN WITH HIGH TRANSPARENCY

APPLICATIONS

- For applications in art and decoration to make transparent objects from 1 mm up to 10 mm such as thin inclusions, embeddings, wood surface sealing and coatings

MAIN PROPERTIES

- High transparency
- Easy mixing ratio 2:1
- Self-degassing behaviour
- Quick setting in thin layers
- Good UV resistance

DESCRIPTION

Basis	Two component epoxy system
Component A	SikaBiresin® TD150 , epoxy resin, unfilled, bluish-transparent
Component B	SikaBiresin® TD165 , amine, unfilled, transparent

PHYSICAL PROPERTIES

		Resin (A)	Hardener (B)
Components		SikaBiresin® TD150	SikaBiresin® TD165
Viscosity, 25 °C	mPa.s	~ 500	~ 650
Density, 23 °C	g/cm ³	~ 1.12	~ 1.00
Mixing ratio	in parts by weight	100	50
	in parts by volume	100	50
Mixture			
Colour		transparent	
Viscosity, 25 °C	mPa.s	~ 500	
Reactivity on 150 g, 25 °C	min	~ 60	

FINAL HARDNESS (50 g)

SikaBiresin® TD150 - TD165

Hardness after 24h @RT	~ D 55
Hardness after 7 days @RT	~ D 80
Hardness after 24h @RT + 16h @ 50°C	~ D 81

MECHANICAL AND THERMAL PROPERTIES

approx. values on standard-sized specimen

			After 7 days @ RT	24h RT + 16h @50 °C
Flexural modulus of elasticity	ISO 178	MPa	1600	1600
Elongation at maximum strength	ISO 527	%	5	5
Glass transition temperature (TMA)	ISO 11359-2	°C	53	53

PACKAGING UNITS

- | | |
|------------------------------------|------------------------------|
| ■ Resin (A), SikaBiresin® TD150 | 1000 kg / 220 kg / 5 kg net |
| ■ Hardener (B), SikaBiresin® TD165 | 950 kg / 200 kg / 2.5 kg net |

PROCESSING DATA

- Room temperature is the most important parameter to be successful in SikaBiresin® TD150/TD165 casting. There is a link in between room temperature (RT), thickness of cast resin and curing speed. A speed curing caused by warm RT creates high exothermic reaction and cured resin could be yellow with streaks on top.
- In thin layers – coating (1 to 5 mm) a warm room (25 – 30 °C) is advised to speed up curing and get best properties.
- Mixing should be done by hand or with an electric mixer. Be careful not to incorporate too much air while mixing. Emulsion must be avoided.
- After a primary mixing in a bucket pour the product in a second bucket and finish the mixing. Scrap well the walls of the mixing container. Prior to casting the mixing can be left for self-degassing for maximum 10 minutes. Alternatively, the mixing can be evacuated in a vacuum chamber.
- According to long pot life and low viscosity the casting frame must be perfectly tight. Brown PE packing tape is self-releasing from the resin and could be used in corners of the box and anywhere resin should not bond on support.
- A liquid or pasty wax could be also used to prevent bonding on models and supports. The wood or porous surfaces of models must be sealed before casting the resin. Quick setting epoxy or a varnish could be used but sealer must be cured prior to casting of the resin.
- After casting and some relaxation time the remaining bubbles can easily be removed with a hot airstream gun (sweep the surface at 15 – 20 cm of distance).
- A thin sanding and polishing are almost always needed to get shiny and flat surface. Use appropriate tools in order to avoid heat on the resin when polishing. Water sandpaper is advised.
- Polishing paste on a buffer is giving the best finishing. Do not heat up too much the casting layer when polishing in order to avoid marks.

STORAGE CONDITIONS

Shelf life	▪ Resin (A), SikaBiresin® TD150	12 months
	▪ Hardener (B), SikaBiresin® TD165	12 months
Storage temperature	▪ Resin (A), SikaBiresin® TD150	15 – 25 °C
	▪ Hardener (B), SikaBiresin® TD165	15 – 25 °C
Crystallization	▪ After prolonged storage at low temperature, crystallization of A (RESIN) component may occur. ▪ This is easily removed by warming up for a sufficient time to a maximum of 70 °C. ▪ Allow to cool to requested processing temperature before use.	
Opened packagings	▪ Containers must be closed tightly immediately after use to prevent moisture and dust 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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