

PRODUCT DATA SHEET

SikaBiresin® TD150 / SikaBiresin® TD140

EPOXY CASTING RESIN WITH HIGH TRANSPARENCY FOR DEEP POUR IN ONE SHOT

APPLICATIONS

- For applications furniture, art and decoration to make deep pour transparent and UV resistant castings such as river table, embeddings, mock-ups, trophies

MAIN PROPERTIES

- High transparency
- As deep as 75mm casting thickness achievable @ 20°C in one shot pouring
- Low viscosity
- Self-degassing behaviour
- Good UV stability

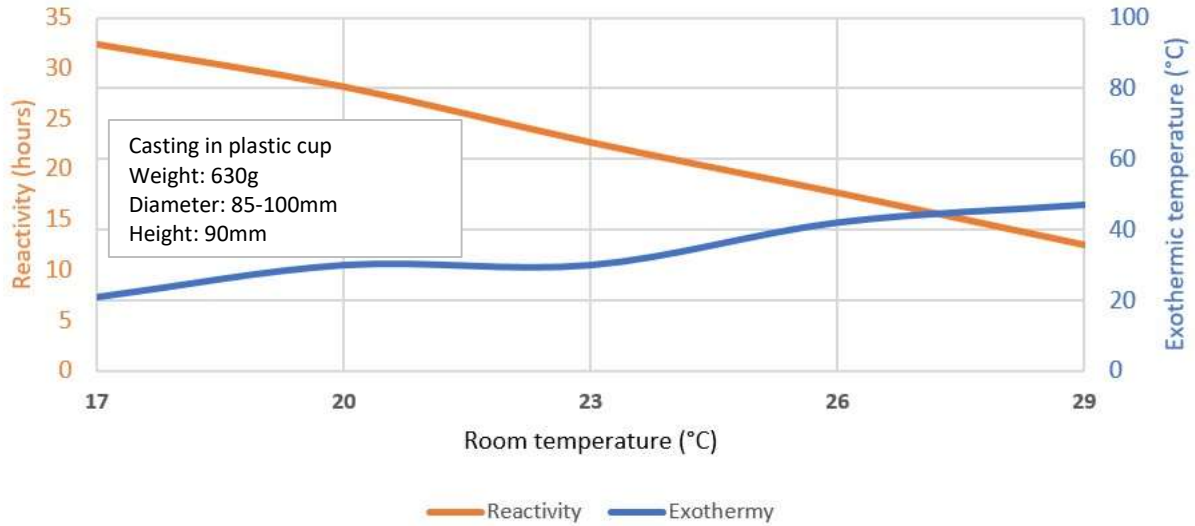
DESCRIPTION

Basis	Two component epoxy system
Component A	SikaBiresin® TD150 , epoxy resin, unfilled, bluish-transparent
Component B	SikaBiresin® TD140 , amine, unfilled, transparent

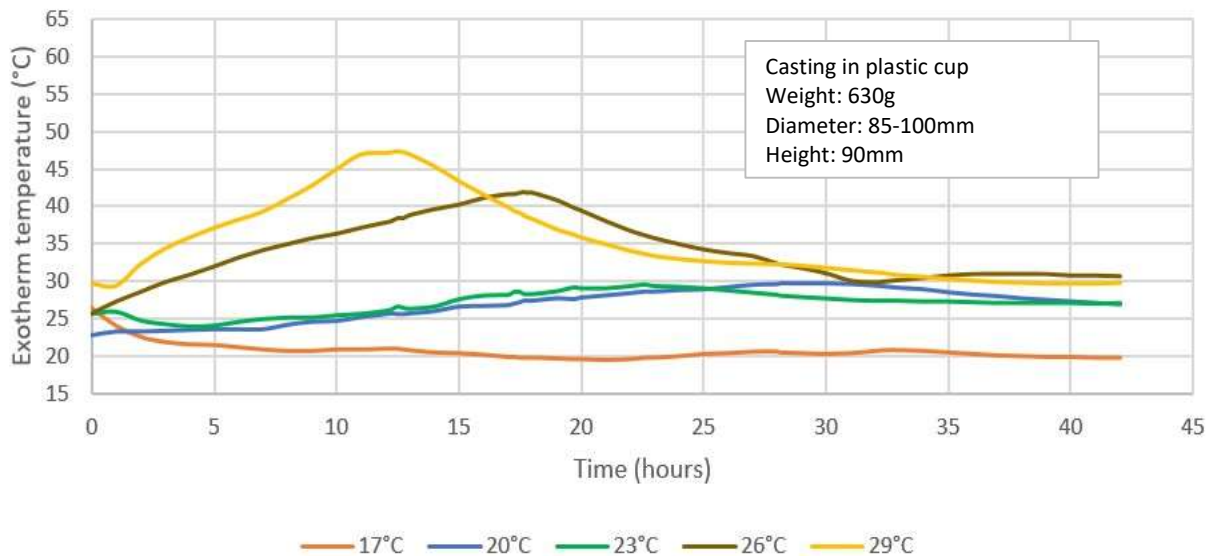
PHYSICAL PROPERTIES

		Resin (A)	Hardener (B)
Components		SikaBiresin® TD150	SikaBiresin® TD140
Viscosity, 25 °C	mPa.s	~ 500	~ 50
Density		~ 1.12	~ 0.98
Mixing ratio	in parts by weight	100	50
	in parts by volume	100	57
		Mixture	
Colour		transparent	
Viscosity, 25 °C	mPa.s	~ 220	
Reactivity on 1,500 g, 25 °C	h	~ 17	

SikaBiresin® TD140 Reactivity and exothermy vs room temperature



SikaBiresin® TD140 Reactivity vs time & temperature



MECHANICAL AND THERMAL PROPERTIES

approx. values

Shore hardness	- after 7 days, 23 °C	ISO 868	Shore D1	73
	- after 14 days, 23 °C			78
After 14 days at 23 °C				
Flexural modulus		ISO 178	MPa	630
Elongation at maximum strength		ISO 527	%	5.5
Impact strength (CHARPY)		ISO 179	kJ/m ²	82
Glass transition temperature (TMA)		ISO 11359-2	°C	42

SPECIFIC PROPERTIES

Maximum casting thickness on plate 350 x 300 mm	Room temperature		Thickness (mm)
	Lowest temperature to work with	17 °C	
20 °C			75
23 °C with fan			90
23 °C			55
Highest temperature to work with	26 °C		45
	29 °C		35

PACKAGING UNITS

- | | |
|---|--------------------------|
| ■ Resin (A), SikaBiresin® TD150 | 1000 kg / 220 kg / 5 kg |
| ■ Hardener (B), SikaBiresin® TD140 | 950 kg / 200 kg / 2.5 kg |

PROCESSING DATA

- Room temperature is the most important parameter to be successful in SikaBiresin® TD140 casting. There is a link in between room temperature (RT), volume 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.
- Above 6kg volume and a casting height of more than 55mm it is recommended to decrease the exothermic temperature by using a fan or reducing the room temperature.
- 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. Leave the mixing for a self-degassing for at least 15 to 30 minutes prior to cast or use 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 SikaBiresin® TD140.
- 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.
- Prolonged intensive UV exposure can lead to optical changes or changes in transparency.

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Sika Advanced Resins

3

BUILDING TRUST



STORAGE CONDITIONS

Shelf life	<ul style="list-style-type: none">■ Resin (A), SikaBiresin® TD150 12 months■ Hardener (B), SikaBiresin® TD140 12 months
Storage temperature	<ul style="list-style-type: none">■ Resin (A), SikaBiresin® TD150 15 – 25 °C■ Hardener (B), SikaBiresin® TD140 15 – 25 °C
Crystallization	<ul style="list-style-type: none">■ 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	<ul style="list-style-type: none">■ 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 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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