BUILDING TRUST

PRODUCT DATA SHEET

SikaBiresin® TD150 (SikaBiresin® TD150 / TRANSLUX D150)

EPOXY CASTING RESIN WITH HIGH TRANSPARENCY SUITABLE FOR DEEP POURING

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
- Low viscosity
- Self-degassing behaviour
- Single pour casting up to 50 mm
- Good UV resistance

DESCRIPTION

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

PHYSICAL PROPERTIES

		Resin (A)	Hardener (B)
Components		**SikaBiresin® TD150**	**SikaBiresin® TD150**
Viscosity, 25 °C	mPa.s	~ 600	~ 100
Mixing ratio	in parts by weight	100	45
	in parts by volume	100	50
		Mixture	
Colour		transparent	
Viscosity, 25 °C	mPa.s	~ 300	
Reactivity on 500 g, 23 °C*	h	~ 17	
(Max. exothermic temperature)	°C	~ 35	

* refer to the graph below, influence of room temperature (RT) on exothermic reaction and curing time on 500 g casted in a plastic cup in thickness 90 mm

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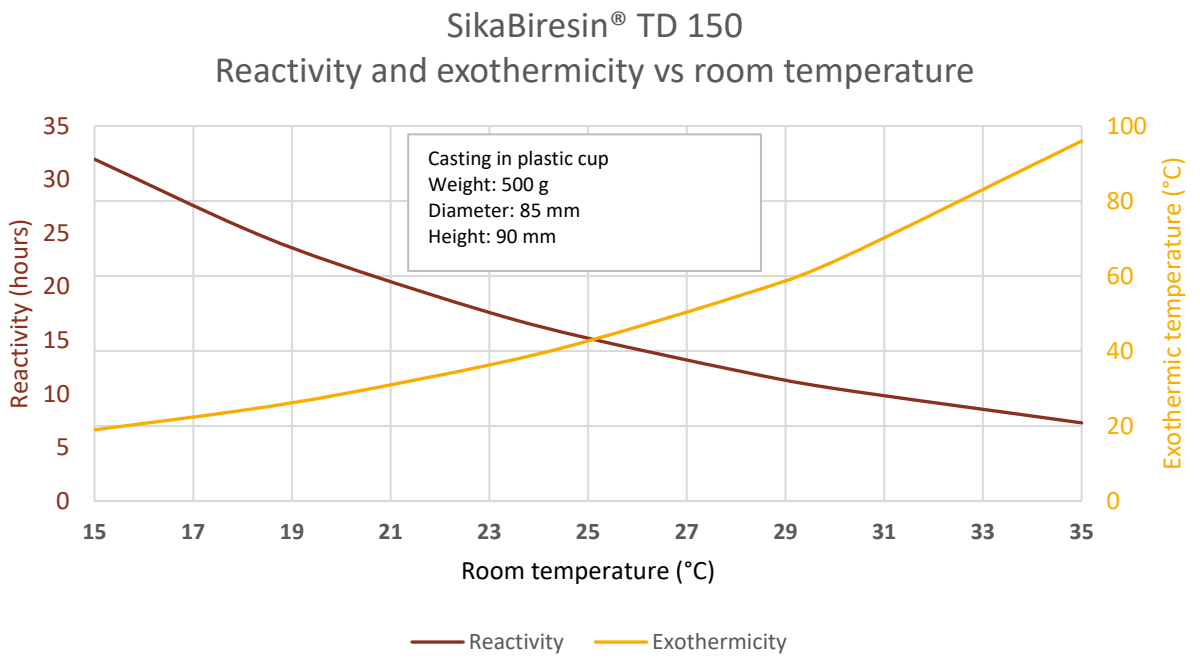
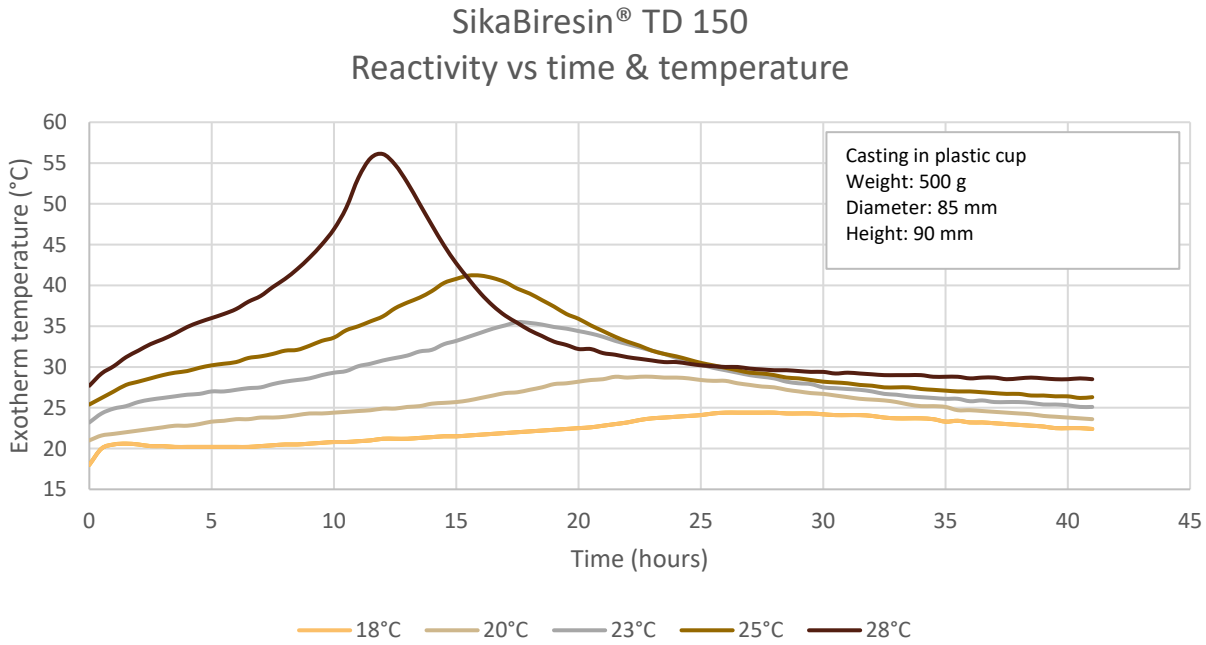

SikaBiresin® TD 150
Reactivity and exothermicity vs room temperature
Casting in plastic cup
Weight: 500 g
Diameter: 85 mm
Height: 90 mm
Reactivity (hours)
Exothermic temperature (°C)
Room temperature (°C)
Reactivity
Exothermicity


SikaBiresin® TD 150
Reactivity vs time & temperature
Casting in plastic cup
Weight: 500 g
Diameter: 85 mm
Height: 90 mm
Exotherm temperature (°C)
Time (hours)
18°C
20°C
23°C
25°C
28°C

MECHANICAL AND THERMAL PROPERTIES

approx. values on standard-sized specimen / after curing 7 days at room temperature

Shore hardness	ISO 868	Shore D1	D 80
Elongation at maximum strength	ISO 527	%	4,5
Flexural modulus	ISO 178	MPa	2,100
Glass transition temperature (TG)	ISO 11359-2	°C	39
Glass transition temperature (TG) after 16H at 50°C	ISO 11359-2	°C	47

SPECIFIC PROPERTIES

Maximum casting thickness on plate 350 x 300 mm	Room temperature	Thickness (mm)	Weight (g)	Temperature of reaction
Lowest temperature to work with	18 °C	70	8,085	45 °C
	20 °C	50	5,575	30 °C
	23 °C	25	2,890	27 °C
	25 °C	15	1,730	27 °C
Highest temperature to work with	28 °C	10	1,155	30 °C

PACKAGING UNITS

■ Resin (A), **SikaBiresin® TD150**	1000 kg / 220 kg / 5 kg net
■ Hardener (B), **SikaBiresin® TD150**	950 kg / 200 kg / 2.25 kg net

PROCESSING DATA

- Room temperature is the most important parameter to be successful in SikaBiresin® TD150 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.
- 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 bucked 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® TD150.
- 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.

STORAGE CONDITIONS

Shelf life	■ Resin (A), **SikaBiresin® TD150** ■ Hardener (B), **SikaBiresin® TD150**	12 months 12 months
Storage temperature	■ Resin (A), **SikaBiresin® TD150** ■ Hardener (B), **SikaBiresin® TD150**	15 – 25 °C 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 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
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