

TECHNICAL DATA SHEET

TRICAST 50 EPOXY RESIN SYSTEM PART A & PART B

PRODUCT IDENTIFIER

Product Name:	TriCast 50 Epoxy Resin System Part A & Part B 1154680 Rev.3
Revision Date:	03-OCT-2025

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 45 mm @ 20°C
- Good UV resistance

DESCRIPTION

PROPERTIES	TEST METHOD
Basis	Two component epoxy system
Component A	TriCast 50 Epoxy Resin System Part A, epoxy resin, unfilled, bluish-transparent
Component B	TriCast 50 Epoxy Resin System Part B, amine, unfilled, transparent

PHYSICAL PROPERTIES

		RESIN (A)	HARDNER (B)
Viscosity, 25 °C	mPa.s	~ 500	~ 100
Mixing ratio	in parts by weight	100	45
	in parts by weight	100	50
		Mixture	

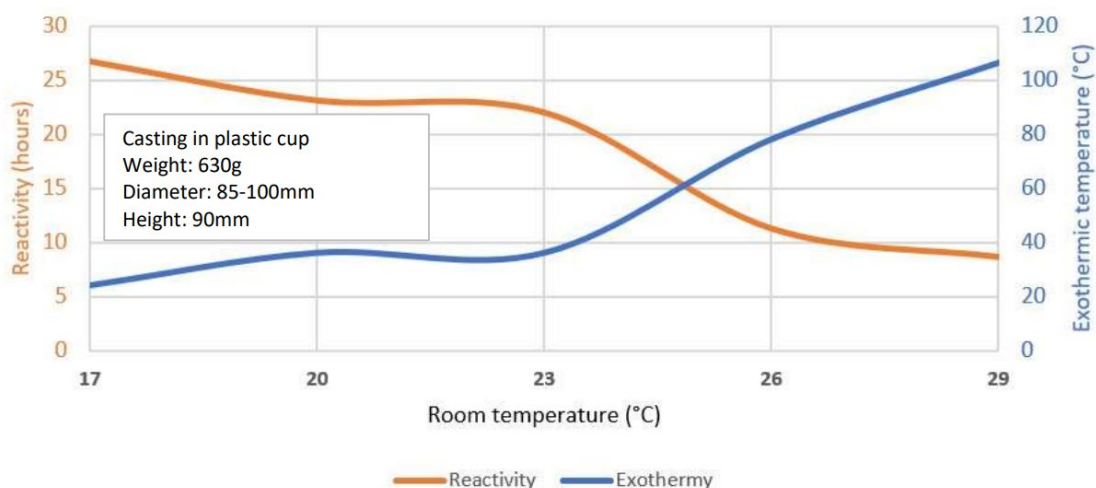
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Colour		transparent
Viscosity, 25 °C	mPa.s	~ 1300
Reactivity on 500 g, 23 °C* (Max. exothermic temperature)	h °C	~ 17 ~ 35

* 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

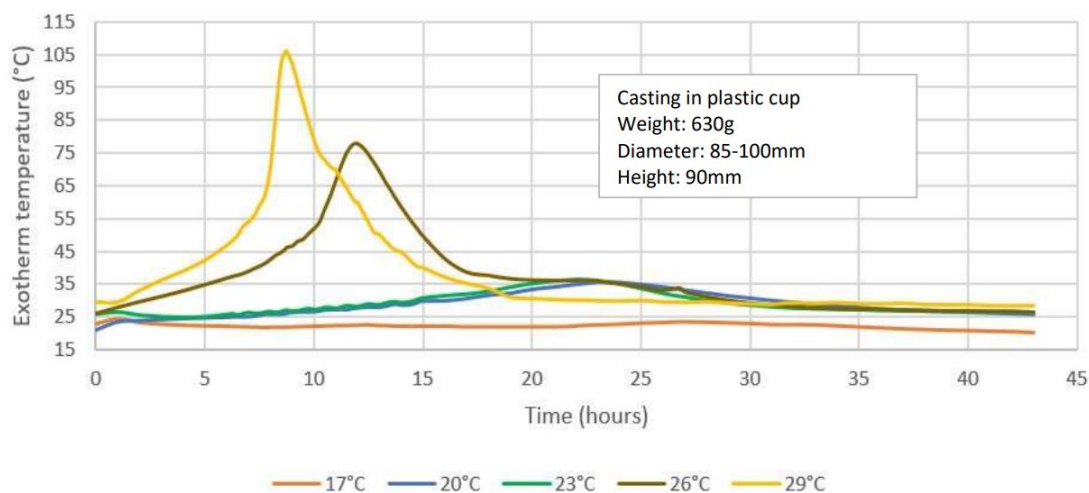
TRICAST 50 EPOXY RESIN SUSTEM PART A

Reactivity and exothermy vs room temperature



TRICAST 50 EPOXY RESIN SUSTEM PART A

Reactivity vs time & temperature



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MECHANICAL & THERMAL PROPERTIES

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

PROPERTIES	TEST METHOD	UNIT	TYPICAL VALUES
Shore hardness	ISO 868	Shore D1	D 80
Elongation at maximum strength	ISO 527	%	4,5
Flexural modulus	ISO 178	MPa	2100
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

approx.. values at 23°C room temperature

PROPERTIES	ROOM TEMP.	THICKNESS (mm)
Maximum casting thickness on plate 350 x 300 mm		
Lowest temperature to work with	17 °C	80
	20 °C	45
	23 °C with fan	70
	23 °C	35-40
	26 °C	30
Highest temperature to work with	29°C	25

Processing Data

- Room temperature is the most important parameter to be successful in TriCast 50 Epoxy Resin system 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 4kg volume and a casting height of more than 40mm 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 selfdegassing for at least 15 to 30 minutes prior to cast or use a vacuum chamber.

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- 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 TriCast 50 Epoxy Resin System.
- 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.

STORAGE CONDITIONS

Shelf life	<ul style="list-style-type: none">• Resin (A)• Hardner (B)	12 months 12 months
Storage temperature	<ul style="list-style-type: none">• Resin (A)• Hardner (B)	15 – 25 °C 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 and dust ingress.• The residual material needs to be used up as soon as possible.	

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 & 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.

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