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TECHNICAL INFORMATION

FOR PROFESSIONAL USE ONLY

CASTING EPOXY SLOW 50

EPOXY RESIN

COLOUR: transparent

GLOSS GRADE: gloss

PRODUCTS

SPEC EPOXY RESIN

SPEC HARDENER FOR EPOXY RESIN

PRODUCT DESCRIPTION

Two-component resin for creating unique artworks, 3D effects, transparent and colored castings, coatings, jewelry making, and much more. System properties:

- Excellent gloss
- Low viscosity
- Good chemical and thermal resistance
- Good air release properties
- Solvent-free
- High UV resistance

VOLATILE ORGANIC COMPOUNDS

VOC for the mixture = 40 [g/l]
This product meets the EU directive (2004/42/EC/II B) that sets the VOC value for its category (b), at 540 g/l.

SURFACE PREPARATION

The epoxy resin casting system is exceptionally user-friendly and reliable. It requires no degassing or special equipment – it self-degasses during curing, resulting in a completely transparent, bubble-free casting.
The resin, when mixed with the hardener, can be poured in a single layer without overheating, deformation, or discoloration in the following thicknesses:

- up to 50 mm – with Hardener 50
- up to 20 mm – with Hardener 20

Multiple layers can be poured on top of each other after the previous layer has cured.

TECHNICAL DATA AND CONSUMPTION CALCULATION

	Resin	Hardener Slow 50
Viscosity (25^{0}C mPas)	600-900	<100
Density (25^{0}C g/ml)	1,17 – 1,20	0,95

	The amount of resin depends on the surface to be covered			
Resin layer thickness	25 x 25 cm	50 x 50 cm	50 x 100 cm	100 x 100 cm
1 mm	62,5 g	250 g	500 g	1 kg
2 mm	125 g	500 g	1 kg	2 kg
3 mm	188 g	750 g	1,5 kg	3 kg
4 mm	250 g	1 kg	2 kg	4 kg
5 mm	313 g	1,25 kg	2,5 kg	5 kg

APPLICATION PROCESS

USE

Creating decorative composites, filling damage in laminates, jewelry making.

POT LIFE

240 minutes at 20°C

MIXING RATIO by weight

Resin	100g
Hardener	35g

Stir thoroughly until achieving an uniform mixture. Stir carefully so as not to air the body filler.

HARDENING TIME

24h at 20°C

Temperature below 20°C significantly increases the hardening time.

PACKAGING SIZES

Packaging sizes for the Slow 50 system:

- 0.5 kg (resin: 370g, hardener: 130g)
- 0.85 kg (resin: 630g, hardener: 220g)
- 6.75 kg (resin: 5kg, hardener: 1.75kg)

USE

The Casting Epoxy system is an easy-to-use and reliable solution. It does not require degassing or the use of specialized equipment – the resin automatically releases air bubbles during the curing process, resulting in a perfectly clear, smooth, and transparent casting.

1. Casting and layer thickness

- Slow 50: can be poured into insulating materials (e.g., wood) in layers up to 50 mm in a single pour – without the risk of overheating, deformation, or discoloration.
- When working with wood, it is recommended to use ISOPRIME WOOD SEALER – see TDS (Technical Data Sheet).
- For thicker castings, layered pouring is advised: additional layers (up to 25 mm each) should be applied after partial curing of the previous one.
- In wood (especially with massive wooden bases), the insulating effect limits heat dissipation – the maximum thickness per layer should not exceed 25 mm.
- At temperatures above 20°C, following this rule is especially important.

Example:
For a *river table* casting with a thickness of 40 mm, it is recommended to pour two layers of 20 mm each. This prevents exothermic reaction and ensures optimal visual results.

2. Flexibility Modification

The flexibility of the resin can be adjusted by changing the resin-to-hardener ratio of Slow 50.

- Adding 20 phr (parts per hundred resin) of the hardener results in a fully transparent product with rubber-like flexibility.
- The material maintains its properties even after post-curing at elevated temperatures.

3. Coloring Options

The Casting Epoxy system allows for the creation of attractive, semi-transparent colors by adding:

- pigment pastes,
- acrylic base,
- polyurethane pigments.

Due to the variety of available pigments, testing is recommended prior to use.

GENERAL NOTES

- The material and ambient temperature during application and curing should be between +15°C and +35°C.
- Lower temperatures will result in a longer curing time!
- Additional heat curing is not required.
- Temperature resistance after curing: -50°C to +85°C
- The presence of water (moisture in the environment, damp fabrics, or fillers) accelerates the curing reaction.
- A constant temperature and humidity level must be maintained throughout the entire curing process.
- Higher processing temperatures are possible but will shorten the pot life of the mixture. An increase of 10°C reduces the pot life by half.
- Air humidity should be between 30% and 70%.
- Air humidity above 70% or moisture present in the materials used can accelerate the reaction between resin and hardener and may cause cloudiness or a milky haze on the cured surface.
- When working with 2-component products, it is recommended to use personal protective equipment. Protect eyes and respiratory system.
- Work areas should be well ventilated.
- Tools should be cleaned immediately after application.
- This product should not be applied over reactive primers or 1K (single-component) coatings.

Caution: To maintain safety, always follow the instructions given in the MSDS for the products

STORAGE

Store the product components between 10 to 25°C in a sealed container, in dry and cool places, away from fire and heat sources, as well as direct sunlight.

Note:

1. Close the containers immediately after application.
2. Protect the hardener from overheating!

WARRANTY PERIOD

SPEC CASTING EPOXY SLOW 50	– 12 months from the date of production
SPEC HARDENER CASTING EPOXY SLOW 50	– 12 months from the date of production

PRODUCT	ART. No.
SPEC CASTING EPOXY SLOW 50 + SPEC HARDENER CASTING EPOXY SLOW 50	3000010494 (0,5kg) set; 300010498 (0,85kg) set 30001010490 (5kg resin)+ 30001010491 (1,75kg hardener)

LIMITATION OF LIABILITY

The information contained in the TDS is up-to-date and correct on the day the information is released.
Because TROTON can not control or predict the conditions under which a product will be used, each user should review information in the specific context of the intended usage. To the maximum extent permitted by applicable law, TROTON shall not be liable for damages of any kind arising from the use or reliance on information contained in this TDS.
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