

TECHNICAL DATASHEET

7390

(Resin 7388 + Hardener 7389)

Description

7390 is a solvent-free potting epoxy resin for application in electronic industries. The resin provides good heat resistance as well as good mechanical properties. After curing, the resin shows a dry, non-sticking surface. Best adhesion is given to metals, ceramics and hard plastics.

Advantages

- Low-odour
- Slow curing
- Transparent
- Solvent-free 100% reactive substance
- Easy flowing, self-levelling
- Excellent heat resistance

Physical properties (liquid product)

Chemical base	Epoxy resin		
Curing System	2-component-system		
Mixing ratio by weight	100 : 25 (resin : hardener)		
Shelf life	24 months at room temperature		
Viscosity at 25 °C (DIN EN ISO 12092; Cone-plate system; shear rate 100 s ⁻¹)	Resin	7388	3'000 – 3'500 mPa•s
	Hardener	7389	~ 5 mPa•s
	Mixture		450 – 550 mPa•s
Density	Resin	7388	~ 1.19 g/ml
	Hardener	7389	~ 0.91 g/ml
	Mixture		~ 1.13 g/ml
Colour	Resin	7388	Colourless / yellowish
	Hardener	7389	Colourless
	Mixture		Colourless

Curing properties

Pot life	~ 45 minutes
Final strength	16 hours at 40 °C
Volume shrinkage acc. to DIN EN ISO 2811-2:2011-06	< 5 %

Physical properties (cured product)

Thermal range	-40 up to 180 °C
Decomposition temperature	> 250 °C

Glass transition temperature (T _g) (DSC method; curing 16h 40°C + 1h 100°C)	~ 97 °C
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Thermal coefficient of linear expansion	< T _g	~ 50 ppm/K
	> T _g	~ 80 ppm/K

Thermal conductivity	~ 0.24 W/(m•K)
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Shore D hardness	~ 85
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Electrical properties

Dielectric strength	~ 34.4 kV/mm
Creep resistance CTI	> 600
Volume resistivity	~ 6•10 ¹⁵ Ohm•cm

Instructions for use

Resin 7388 and hardener 7389 have to be mixed in the ratio 100:25 (by weight) followed by degassing for 10 minutes at reduced pressure (50-100 mbar). The mixture should be used within 30 minutes. The sooner the mixture is used, the more fluid it is. For best mechanical properties, the product should be cured at min. 40 °C.

It is recommended to determine the degree of curing of the potting compound with relevant test methods (e.g. DSC measurement), as different curing cycles as well as the component volume can have an influence on the final properties.

Precautions

For your own safety, please refer to the information of the concerned MSDS.

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