

## TECHNICAL DATASHEET

### ergo.<sup>®</sup> 7390

(ergo.<sup>®</sup> 7388 (resin) and ergo.<sup>®</sup> 7389 (hardener))

#### Description

ergo.<sup>®</sup> 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 odor
- easy flowing
- self-levelling
- transparent
- slow curing
- solvent-free
- excellent heat resistance

#### Physical properties (unfilled, liquid product)

Chemical base			epoxy resin
Curing System			2-K-System
Mixing ratio			100 : 25 ( <i>resin : hardener</i> by weight)
Viscosity according to DIN 54453 (cone/plate-system; cone C-50, shear rate $D=100 \text{ s}^{-1}$ ; 25°C)			
	Resin	ergo. <sup>®</sup> 7388	3.000 – 3.500 mPa•s
	Hardener	ergo. <sup>®</sup> 7389	~ 5 mPa•s
	Mixture		450 – 550 mPa•s
Colour	Resin	ergo. <sup>®</sup> 7388	colorless
	Hardener	ergo. <sup>®</sup> 7389	colorless
	Mixture		colorless
Density @ 23°C	Resin	ergo. <sup>®</sup> 7388	1,0 g/cm <sup>3</sup>
	Hardener	ergo. <sup>®</sup> 7389	0,9 g/cm <sup>3</sup>
	Mixture (fresh)		~ 0,98 g/cm <sup>3</sup>
Shelf life			12 month at RT

## Physical properties (unfilled)

Shore D hardness	65 – 75
Glass transition temperature (Tg)	~ 100°C
Thermal range	- 40°C to +180°C
Decomposition temperature	> 250°C
Pot life (100g mixture @ 25°C)	45 Minutes
Final strength	16 hours at 40°C
Thermal coefficient of linear expansion	80 ppm/K
Thermal conductivity	0,24 W/(m•K)

## Electrical properties

Dielectric strength	34,4 kV/mm
Creep resistance CTI	> 600 V
Volume resistivity	$6 \cdot 10^{15}$ Ohm•cm

## Instruction of use

Resin ergo.® 7388 and hardener ergo.® 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. For best mechanical properties, the product should be cured at min. 40 °C.

Depending on the required properties the filler ergo.® 7387 can be added to the resin ergo.® 7388. The physical properties of the filled product are depending on the amount of filler and have to be determined in every special case. The required amount can be advised by the technical service of Kisling AG.

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