

## 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.

ergo.<sup>®</sup> 7390 combined with the filler ergo.<sup>®</sup> 7387 passes testing according UL94 HB.

#### 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

Breakdown voltage	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.

The information in this data sheet is based on the results of our research and experience. However, the suggestions herein concerning the use, application, and processing of the products (collectively, „the methods“) are non-binding recommendations only. It is the user's sole responsibility to determine the suitability and safety of these methods, based on the user's particular purpose in using the products. Before relying on the reliability and safety of any parts that are bonded using the products, it is extremely important that the user test the reliability and safety of the parts that are bonded. Failure to do so could result in serious personal injury. Because of the use of the products are within the purchaser's sole control, Kisling Corporation specifically disclaims all warranties, express or implied, including warranties of merchantability or fitness for a particular purpose, arising from the sale or use of the products described herein. Kisling Corporation specifically disclaims any liability for consequential, incidental, or other damages of any kind, including lost profits. Kisling Corporation's liability for damages shall not exceed the purchase price of the products used.

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