

EN

Preliminary Technical Data Sheet

Elan-glue®**EP 5350**

Electronic Adhesive

Modified Epoxy - One component - Heat Cure
Rigid - Low Temperature Cure

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Description

Elan-glue[®] EP 5350 represents a low thermal cure, thixotropic, solvent-free, single component formulation based on epoxy resin. Elan-glue[®] EP 5350 is suitable for a large range of adhesive applications. The cured material provides an excellent adhesion to common substrates. Elan-glue[®] EP 5350 satisfies the requirements of RoHS.

Areas of application

Elan-glue[®] EP 5350 has been designed for the electronics industry. It provides excellent adhesion to glass, metals and polymer materials such as PMMA, PC and ABS. The product has a high viscosity, thixotropic flow behaviour and excellent wettability to various substrates. The cured product is very hard and has shown good stability against UV-radiation.

Properties of cured product

Elan-glue[®] EP 5350 has following properties in cured conditions:

- Rapid low temperature curing
- Good adhesion on many substrates
- Low shrinkage on curing
- Solvent Free

Storage and stability

Elan-glue[®] EP 5350 is supplied in syringes in sealed packages. The product should be stored at a temperature of -10°C to +25°C in its original sealed container. Shelf-life at 20°C is three months. To ensure maximum shelf-life the material should be frozen at -25°C to -15°C.

Preparation

The packages should be allowed to reach their application temperature, 25 to 30 °C, before opening and use to allow the viscosity to reach the specified level and to avoid condensation of water on the package. The surface of the substrates should be clean, residue-free and dry. Please check compatibility of the glue resin with the surfaces prior to use.

Processing methods

Elan-glue[®] EP 5350 should be applied directly from the syringe with a dispenser or similar system. During dispensing, the shear applied to the resin, governed by the diameter, length and applied pressure on the dispensing needle, substantially reduces the viscosity allowing fast processing.

Exposure to elevated temperature will start willingly or unwillingly the curing reaction.

Curing/Post-curing

Curing is typically carried between 80°C and 120°C. As an example successful cure of a 100 µm layer of Elan-glue[®] EP 5350 on PET-foil has been performed in 10 min at 90°C.

Handling precautions

Refer to the safety data sheet and comply with regulations relating to industrial health and waste disposal.

Sales specifications

Properties	Conditions	Test Method	Value	M/U
Viscosity	23 °C - D=10 1/s	DIN 53019 (Internal Test V18/b/c)	12000 ÷ 18000	mPa·s

Typical system properties

Properties	Conditions	Test Method	Value	M/U
Shelf life	20 °C	Internal Test	3	months
Appearance	23 °C	Visual (Internal Test A1)	Beige	

Typical mechanical properties of the cured product

Properties	Conditions	Test Method	Value	M/U
Hardness Shore D	25 °C	ISO 868 (Internal Test M30b)	45 ÷ 55	Shore D

Typical thermal properties of the cured product

Properties	Conditions	Test Method	Value	M/U
Temperature range		Internal Test	-40 ÷ 150	°C
Linear expansions coefficient	below Tg -20 °C	TMA (Internal Test M56)	70 ÷ 90	ppm/K
	above Tg +20°C		190 ÷ 210	ppm/K
Glass transition temperature (Tg)		DIN EN ISO 11357 (Internal Test M52)	40 ÷ 50	°C

Chemical properties of cured compound

Properties	Conditions	Test Method	Value	M/U
Water Absorption	24 h / 25 °C	DIN EN ISO 62 (Internal Test M09a/b)	< 1	%

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