

EN 458 Clear Encapsulant Epoxy

Description

EN 458 is a one-part clear adhesive based on epoxy resins. The cured Tg of over 120 °C provides very good high temperature performance. It has excellent adhesion to most printed circuit boards and electronic components. It has a long pot life even at room temperature of 25 °C. The thixotropy has been adjusted to control the flow and give a higher profile. It has a smooth and glossy surface. It is transparent after cured at a thickness of 3 mm.

Applications

1. Encapsulation of ICs on printed circuit boards
2. Encapsulation of smart card ICs
3. Sealing of electronic and electrical devices

Guidelines for Use

1. Thaw the epoxy to room temperature (25 °C) before use.
2. Dispense the epoxy by using a syringe.
3. Cure the epoxy by heating at 120 °C for 1 hour or at 150 °C for 30 minutes in a convection oven.
4. Wipe off any excess uncured adhesive with a piece of dry cloth or tissue. Further cleaning may be achieved with tissue wetted with iso-propanol (IPA).

Properties

Property	Test Method	Unit	Typical Value
Chemical type			Epoxy
Appearance	Pen 10		Clear paste
Mix ratio, by weight			One component
Shelf life, -20 °C	Pen 26	Month	12
Pot life, 25 °C	Pen 26	Day	14
Viscosity, Brookfield RVT, 25° C	ASTM D2393	cP	220,000
Hardness, cured 150 °C for 1 hr	Pen 29	Shore D	85
Tg, DSC, cured 150 °C for 1 hr	Pen 19	°C	125
Coefficient of thermal expansion	Pen	mm ⁻¹ C ⁻¹	3.8 x 10 ⁻⁴
Tensile strength	Pen	kgcm ⁻²	380
Shear strength	Pen	kgcm ⁻²	158
Volume resistivity, 25 °C	Pen	ohm.cm	4.6 x 10 ¹⁶

Recommended Cure

Schedule	Temp.	Cure Time
A	120 °C	1 hr
B	150 °C	30 min

Storage

Tightly close original container of unused product and store below -20 °C. Storing at lower temperatures down to -40 °C may prolong shelf life beyond 12 months. However it may take longer time to thaw the product.

Packaging

- 30 ml EFD syringe
- 10 ml EFD syringe
- 5 ml EFD syringe

Environment, Health & Safety

This product is RoHS compliant. It does not contain any known carcinogenic, mutagenic or teratogenic components.

Contact Information

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