

EN 485

Chip On Board Epoxy

Description

EN 485 is a one-part black adhesive based on epoxy resins. The cured Tg of over 150°C provides very good high temperature performance with excellent adhesion to most printed circuit boards and electronic components. It also has a long pot life and long shelf life even at room temperature of 25°C. The thixotropy has been adjusted to control excessive overflow. When cured, the resin has a smooth satin surface.

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. Wipe off any excess uncured adhesive with a piece of dry cloth or tissue. Further cleaning may be achieved with tissue dabbed with isopropanol.
4. Cure the epoxy by heating at 120°C for 2 hours or at 150°C for 1 hour.

Properties

Property	Test Method	Unit	Typical Value
Chemical type			Epoxy
Appearance	Pen 10		Black paste
Mix ratio, by weight			One component
Density			1.94
Shelf life, -20°C	Pen 26	Month	6
Pot life, 25°C	Pen 26	Week	1
Viscosity, CAP 2000+Viscometer, Cap-06, 25°C	Pen 44	cps	52,050
Hardness, cured 150°C/1 hr	Pen 29	Shore D	85
Tensile strength	Pen	kgcm ⁻²	471
Shear strength	Pen	kgcm ⁻²	173
Water boil, wt gain, 1 hr	Pen 21	%	0.48
Dielectric constant, 100 Hz, 100°C	ASTM D150		3.5
Volume resistivity, 25°C	ASTM D257	ohm.cm	4.6 x 10 ¹⁶
Tg, DSC, cured 150°C/1 hr	Pen 19	°C	140
Coefficient of thermal expansion before Tg	ASTM E831	ppm/K	55
Storage Modulus 40°C		MPa	2415
Loss Modulus 40°C		MPa	36

Recommended Cure

Schedule	Temp.	Cure Time
A	120 °C	2 hr
B	150 °C	1 hr

Storage

Tightly close original container of unused product. Store below -20°C. Storing at lower temperatures down to -40°C may prolong shelf life beyond 6 months. However it may take longer time to thaw the product.

Packaging

- 30 ml EFD syringe
- 1 kg plastic jar
- 5 kg plastic pail

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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