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ISO 9001:2008
Certificate Reg : 01 100 117287
ISO14001:2004+Cor1:2009
Certificate Reg : 01 104 117287
ISO/TS 16949:2009
Certificate Reg : 01 111 117287

UF 256 Underfill Epoxy

Description

UF 256 is a one part fast cure reworkable underfill epoxy resin for BGA and CSP. It has low viscosity and good capillary flow, suitable for gap height with at least 30μm. The underfill epoxy cures quickly over 120°C. The cured underfill epoxy has low shrinkage, low coefficient of expansion and good adhesion to organic substrate, such as FR-4 PCB.

Applications

1. Underfill epoxy for CSP and BGA.

Guidelines for Use

1. Thaw the underfill epoxy to room temperature (25°C) before use.
2. Agitate or stir the underfill epoxy before use.
3. Dispense the epoxy by using a syringe.
4. The underfill epoxy can be flow at room temperature, however, preheat the PCB or substrate up to 60°C will increase the flow rate.
5. Cure the underfill epoxy by heating at 150°C for 5 minutes.
6. 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 or acetone.

Recommended Cure

150°C @ 5 minutes
130°C @ 10 minutes

Properties

Property	Test Method	Unit	Typical Value
Chemical type	-	-	Epoxy
Appearance	Pen 10	-	Off-White
Specific gravity	Pen 61	-	1.3
Viscosity, CAP2000+, C01, 100rpm, 25°C	Pen 44	cP	800
Pot life, 25°C	Pen 26	Day	1
Volatile content, loss on cure	Pen 29	%	<1.5
Tg	Pen 64	°C	102
CTE before Tg	Pen 64	ppm/°C	57
CTE after Tg	Pen 64	ppm/°C	155

1. Most of the test methods correspond to American Standard Test Methods (ASTM).
2. The values above are tested based on batch to batch basis. These values are not use as a basis for preparing specifications.

Guidelines for Rework

A) Removal of CSP and BGA from PCB:

1. Heat the PCB at 240-260°C until both the underfill and the solder are softened.
2. Use a tweezer to lift the component and remove it from the PCB.
3. Avoid prolonged heating the underfill at high temperature.

B) Removal of underfill & solder residue from PCB:

1. After removing the component, continue to heat the PCB to 240-260°C.
2. Carefully scrape away the soften underfill and solder residues on the surface of the PCB using a scrapper.
3. After the removal of the underfill & solder residue, wipe the PCB with tissue or cotton soaked with iso-propanol or acetone.

Storage and Shelf Life

Store the unused product tightly in its original container at -20°C.

The shelf life of the product is 6 months at -20°C.
Storing at lower temperatures down to -40°C may prolong shelf life beyond 6 months but may need longer time to thaw. Avoid exposing the resin to sunlight or UV light.

Packaging

- 5mL black EFD syringe
- 10mL black EFD syringe
- 30mL black 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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