

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 isopropanol 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	-	Black
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. Softening the underfill by heat component to 240-250°C.
2. Once the underfill and solder is soft enough, lift component to remove.
3. Avoid excessive time exposure to high temperature.

B) Removal of underfill & solder residue from PCB:

1. After removing the CSP, continue heat the PCB to 240-250°C.
2. Carefully scrape away the soften underfill and solder residues on the surface of the PCB using scraper.
3. After removal of underfill & solder residue, wipe the PCB with tissue or cotton wetted with isopropanol or acetone.

Storage and Shelf Life

Tightly close original container of unused product. Store at 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. Avoid expose the resin under sunlight or UV light.

The unopened original products have a shelf life of 6 months from the date of production.

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.

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