

Description

EW 6360 is a single part, solvent free epoxy. This product is designed as flip chip underfill. It provides excellent protection of solder joints from mechanical stress and thermal shock.

Features

- Halogen free
- Low CTE
- High Tg
- Compatible with lead-free solder paste
- Fast capillary flow to penetrate micro-gaps
- Excellent reliability

Uncured Properties

Chemical Type	Epoxy
Appearance	Black
Viscosity @ 25°C [mPa·s] Brookfield DV2T, spindle 14# @ 20 rpm	6,500
Thixotropic index	1.04
Flow @ 70°C (25µ parallel plates)	6mm in 10s 12mm in 30s
Specific Gravity [g/cm³]	~1.72
Shelf Life @ -20±5°C [months]	6
Pot Life @ 25°C [hrs]	24

Curing Conditions

Thermal Curing @ 150°C [mins]	30
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Cured Properties

Hardness [Shore D] ASTM D2240	90
Glass Transition Temperature (Tg) [°C] ISO 11359	180

Lap Shear Strength [MPa] PCB to PCB Stainless steel to Stainless steel ASTM D1002	15 18
Coefficient of Thermal Expansion (CTE) [ppm/K] Below Tg Above Tg ASTM D696	25 70
Tensile Strength [MPa] ASTM D638	30
Elongation at Break [%] ASTM D638	5
Water Absorption [%] ASTM D570	<1.0
Surface Resistivity [ohm·cm] ASTM D257	>1.0x10 ¹⁴
Volume Resistivity [ohm·cm] ASTM D257	>1.0x10 ¹⁴
Dielectric Strength [V/mm] ASTM D149	300

Directions for Use

1. Surface Treatment

Surfaces to be bonded should be free of dust, oil, grease or any other contaminants in order to achieve a reproducible bond. For slightly contaminated surfaces, it is sufficient to wipe with isopropanol or ethanol. Substrates with a low surface energy (e.g. polyethylene, polypropylene, Teflon) need to be pre-treated physically (e.g. atmospheric plasma or corona) in order to achieve sufficient adhesion.

2. Application

Products are supplied ready for use. Depending on package type, they can be dosed manually, semi-automatically or fully-automatically with a dosage apparatus. With automatic dispensing using a cartridge,

the adhesive is conveyed via pressure and a piston rod to a dispense valve. With bottles, the adhesive is conveyed using a pump.

3. Suggested working temperature range is -40°C to 180°C.

Storage

Maximum shelf life may be obtained when product is stored in a cool, dry location at a temperature of **-20±5°C**.

TO PREVENT CONTAMINATION OF UNUSED PRODUCT, DO NOT RETURN ANY PRODUCT TO ITS ORIGINAL CONTAINER.

Allow the product to thaw for two hours after it is removed from the refrigerator prior to use. It is best practice to wipe away any moisture on the surface of the syringe with cleanroom wipes.

Materials Handling

Refer to the Material Safety Data Sheet (MSDS) for this product.

Disclaimer

The information provided here including the recommendations for use and application of the product is based on internal laboratory test conditions and should only be used as a reference. CollTech does not assume responsibility for the test or performance results obtained by the user. It is the responsibility of the user to perform their own evaluations to confirm whether this product is suitable for their application.