



TG-LH-FBPE-80

Flexible Black Potting Epoxy

Version 4.040320

Flexible Black Potting Epoxy

TG-LH-FBPE-80 is a two-part flexible black potting compound based on epoxy resins. When fully cured the surface is glossy, blush free and soft. It has very good scratch and water resistance. This system has enhanced adhesion, is of low viscosity and wets glass, ceramics, most plastics and metals well.

Features

- Flexible
- Convenient volume mix ratio
- Very low mixed viscosity
- Good adhesion to a wide variety of substrates including metals, composites, glass, ceramics, and many plastics
- Excellent electrical insulating characteristics
- Extreme resistance to water and humidity (allows for submersion where needed)

Applications

Flexible black potting epoxy for electrical and electronic devices

Properties

- ✓ REACH Compliant
- ✓ ROHS Compliant

| Property | TG-LH-FBPE-80 | | | Units | Test Method |
|------------------------------------------------------------------|---------------|------------------------|------------------|----------|-------------|
| | Part A Resin | Part B Hardener | Mixed | | |
| Chemical type | Epoxy | Amine | - | - | - |
| Appearance | Black Liquid | Clear yellowish liquid | - | - | Visual |
| Mix Ratio, by weight | 2.0 | 1.0 | - | - | - |
| Shelf Life, 25°C | 12 | 12 | - | Months | ASTM F2914 |
| Pot Life, 25°C | - | - | 6 | hours | ASTM F2914 |
| Viscosity, CAP2000+ viscometer, 25°C | 22,200 | 140 | 3,200 | cP | ASTM D1084 |
| Hardness, cured 25°C for 7 days | - | - | 80 | Shore 00 | ASTM D2240 |
| Water Boil, wt gain, 24 hr | - | - | 1.0 | % | - |
| Ionic Content, Cl | - | - | >500 | - | - |
| Ionic Content, K | - | - | N.D | - | - |
| Ionic Content, Na | - | - | N.D | - | - |
| Thermal Conductivity | - | - | 1.1 | w/mk | ASTM D5470 |
| Electrical Resistivity | - | - | 10 ¹⁶ | Ω-m | - |
| Filler Type | Metal Oxide | - | - | - | - |
| Maximum Operating Temperature | - | - | 150 | °C | - |
| Glass Transition Temperature (T _g) | - | - | 24 | °C | - |
| CTE1 (Coefficient of Thermal Expansion before (T _g)) | - | - | 40 | ppm/K | - |
| CTE2 (Coefficient of Thermal Expansion after (T _g)) | - | - | 181 | ppm/K | - |

Standard Packaging

| Size | Pot | Weight (gr) |
|----------------|----------------|-------------|
| | Plastic Bottle | 1 kg |
| Plastic Bottle | 5 kg | |

* All measurements in weights are in gr

Storage

Tightly close original container of unused product. Store in a cool and dark place.

* Data for design engineer guidance only. Observed performance varies in application. Engineers are reminded to test the material in application.

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