



G6E-HTC™ HIGH TEMPERATURE CARBON-FILLED ELECTRICALLY CONDUCTIVE EPOXY

Technical Data Sheet

DESCRIPTION: G6E-HTC™ epoxy is developed primarily for applications requiring a high-performance bond or connection of electrically conductive components/materials that operate at higher temperatures. G6E-HTC™ epoxy's properties result from being formulated with proprietary nanomaterials and fillers. This epoxy is low cost as compared to high temperature silver epoxy. Curing of G6E-HTC™ epoxy requires a heating oven. Uses for G6E-HTC™ epoxy include casting, coating, encapsulation, grounding, medical device manufacture and repair, etc.

FEATURES:

- Higher Glass Transition & Operating Temperature
- Carbon Filled (Non-Metallic & Non-Magnetic)
- Low-Cost (as an alternative to silver-based epoxies)
- Electrically Conductive
- Low Density
- Corrosion Resistant

TYPICAL APPLICATIONS:

- Casting, Coating & Encapsulation
- Grounding such as Electrostatic Discharge (ESD)
- Automotive, Aerospace & Defense Industries
- Soldering Replacement
- EMI / RFI Shielding
- Medical Devices

SPECIFICATIONS:

TWO COMPONENT SYSTEM: Part A – smooth black paste
Part B – smooth black paste

MIX RATIO: 100 (Part A) to 80 (Part B) by weight.

POT LIFE: 4 hours

CURING SCHEDULE: Best results are obtained when product is cured at 4 hours @ 150°C / 302°F.
Post cure for 1–2 hours @ 180°C / 356°F for optimum properties.

DENSITY: Part A 1.0 – 1.1 g/cm³
Part B 1.0 – 1.1 g/cm³

MIXED VISCOSITY: 420 Pa·s @ 25°C / 77°F
18 Pa·s @ 80°C / 176°F

OPERATING TEMPERATURE: Up to 316°C / 600°F

**GLASS TRANSITION
TEMPERATURE (T_g):** 142°C / 288°F

Disclaimer: The information provided is based on data and tests believed to be accurate. Graphene Laboratories, Inc. makes no warranties (expressed or implied) as to accuracy and assumes no liability in connection with any use of this product.



HARDNESS, SHORE: >85 D

VOLUME RESISTIVITY: ~15 $\Omega \cdot \text{cm}$

MIXING INSTRUCTIONS: Stir both components before use. Add Part B to Part A and mix slowly until uniform in a separate container.

STORAGE & SHELF LIFE: 6 months @ 25°C / 77°F in unopened, unmixed containers. Stores and ships at room temperature. No freezing is required.

SHIPPING & HANDLING: Always read both SDS before use. Use product with adequate ventilation. Keep away from sparks and open flames. Avoid prolonged contact with skin and breathing of vapors. Wash with soap and water to remove from skin.

ABOUT G6-EPOXY™: All G6-EPOXY™ specifications are for normal use and routine applications. Please consult with our team to ensure the most appropriate selection of G6-EPOXY™ products. Depending upon your application requirements, a custom G6-EPOXY™ formulation may be available.

G6-EPOXY™ is a trademark owned by Graphene Laboratories, Inc.

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