G6E–HTNS™ HIGH TEMPERATURE SILVER–CARBON ELECTRICALLY CONDUCTIVE EPOXY

Technical Data Sheet

DESCRIPTION: G6E–HTNS™ epoxy is developed primarily for applications requiring a high–performance bond or connection of electrically conductive components/materials which operate at higher temperatures requiring low electrical resistivity. G6E–HTNS™ is developed based on advanced proprietary technology that utilizes 20% or less silver content to be at par with leading silver–based epoxies in terms of electrical properties. G6E–HTNS™ epoxy's properties result from being formulated with proprietary nanomaterials and fillers. A heating oven is required for curing. Uses for G6E–HTNS™ epoxy include printed circuit board, RFID tags, medical device manufacture and repair, etc.

FEATURES:

- Higher Glass Transition & Operating Temperature
- Silver–Carbon Filled (Non–Magnetic)
- Very Good Electrical Conductivity
- Resistant to Temperature Variations
- Impact / Shock Resistant
- Moderate Cost (as an alternative to silver only based epoxies)

TYPICAL APPLICATIONS:

- Printed Circuit Board Manufacture / Repair
- Radio Frequency Identification (RFID) tags
- EMI / RFI Shielding
- Electrical Sensors / Transducers
- Solder Replacement

SPECIFICATIONS:

TWO COMPONENT SYSTEM: Part A – smooth dark grey paste
Part B – smooth thixotropic silver paste

MIX RATIO: 100 (Part A) to 100 (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 2.15–2.30 g/cm^3
Part B 2.30–2.40 g/cm^3

MIXED VISCOSITY: 220 to 230 Pa·s @ 25°C / 77°F

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

PATENT PENDING

GLASS TRANSITION
TEMPERATURE (Tg): 140°C / 284°F

HARDNESS, SHORE: >83 D

VOLUME RESISTIVITY: 0.003 Ω·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: 12 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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