

# HIGH TEMPERATURE NANOCARBON ELECTRICALLY CONDUCTIVE EPOXY

# G6E-HTC™

**DESCRIPTION:** G6E-HTC<sup>™</sup> epoxy is primarily developed for applications requiring a high-performance bond or connection of electrically conductive components/materials which operate at higher temperatures and require good electrical resistivity.

We use a proprietary mix of high-performance carbon filler to achieve superb electrical properties for a non-metallic electrically conductive epoxy. **Operating temperature is up to 315°C/600°F.** 

#### **FEATURES:**

- Non-magnetic; carbon filled
- Good electrical resistivity: <10 Ohm·cm
- Low Cost, Low Density
- Excellent gap-filling adhesive
- Impact / Shock Resistant
- Exellent solvent and chemical resistance

#### **TYPICAL APPLICATIONS:**

- Electronics operated or exposed to High Temperature
- Embedded Electrical Heaters
- EMI / RFI Shielding
- Electrical Sensors / Transducers
- Solder Replacement

## **SPECIFICATIONS OF UNCURED MATERIAL:**

TWO COMPONENT SYSTEM:

MIX RATIO:

**WORKING TIME:** 

**CURING SCHEDULE:** 

**DENSITY:** 

MIXED VISCOSITY:

Part A – smooth black paste Part B – smooth black paste

100 (Part A) to 80 (Part B) by weight

4 hours

2 hours @ 150°C / 302°F or 1 hour @ 180°C / 356°F

Part A 1.0 - 1.2 g/cm<sup>3</sup> Part B 1.0 - 1.1 g/cm<sup>3</sup>

 $450 - 550 \text{ Pa·s } @ 25^{\circ}\text{C} / 77^{\circ}\text{F}$  gap plates =  $900 \mu\text{m}$ , oscillation rate =  $1.25 \text{ s}^{-1}$   $118 \text{ Pa·s } @ 80^{\circ}\text{C} / 176^{\circ}\text{F}$ 



## SPECIFICATIONS OF CURED MATERIAL: cured at 80°C/176°F

HARDNESS, SHORE:

> 80 D

GLASS TRANSITION TEMPERATURE (Tg):

142°C / 288°F

FLEXURAL MODULUS:

4 - 6 GPa at 25°C

LOSS MODULUS:

150 - 300 MPa at 25°C

**VOLUME RESISTIVITY:** 

<10 Ω·cm

#### **GENERAL INFORMATION:**

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.

G6-EPOXY™

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