

# SILVER-NANOCARBON ELECTRICALLY CONDUCTIVE EPOXY

**G6E-NS11™** 

**DESCRIPTION:** G6E-NS11<sup>™</sup> epoxy is developed for general purpose applications requiring high performance bond or connection of electrically conductive components/materials for enhanced electrical conductivity. G6E-NS11<sup>™</sup> is developed based on advanced proprietary technology that requires 25% or less silver content to be at par with leading silver-based epoxies in terms of electrical properties.

This improvement not only reduces the cost of the material, but also makes G6E-NS11™ less prone to fracture, thus allowing for stronger adhesion to the target substrate. A heating oven is strongly recommended for curing. Operating temperature is up to 120 °C.

## **FEATURES:**

- Silver-Nanocarbon Filled (Non-Magnetic)
- Good Electrical Conductivity
- Low Viscosity, low density

## **TYPICAL APPLICATIONS:**

- Wearable Electronics
- EMI / RFI Shielding
- Electrical Sensors / Transducers
- Solder Replacement

# **SPECIFICATIONS OF UNCURED MATERIAL:**

TWO COMPONENT SYSTEM:

Part A – smooth dark grey paste
Part B – smooth silver paste

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

POT LIFE: 2 - 3 hours

CURING SCHEDULE: 45 min @ 150°C / 302°F

DENSITY: Part A 1.8 - 2.2 g/cm<sup>3</sup>
Part B 2.6 - 2.8 g/cm<sup>3</sup>

MIXED VISCOSITY: 55- 75 Pa·s @ 25°C / 77°F



# **SPECIFICATIONS OF CURED MATERIAL:**

HARDNESS, SHORE:

> 70 D

GLASS TRANSITION TEMPERATURE (Tg):

65°C/149°F (cured at 150°C/302°F)

**FLEXURAL MODULUS** 

2.5 - 3.5 GPa at 25°C

LOSS MODULUS

110 - 200 MPa at 25°C

**VOLUME RESISTIVITY:** 

<0.0008 Ω·cm (cured at 150°C/302 °F)

## **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 @  $25^{\circ}\text{C}$  /  $77^{\circ}\text{F}$  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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