



## G6E-NS11™ GENERAL PURPOSE SILVER-CARBON ELECTRICALLY CONDUCTIVE EPOXY

### *Technical Data Sheet*

**DESCRIPTION:** Traditional silver-based adhesives require up to 80% weight load of silver fillers and as a result tend to be costly, brittle and prone to mechanical failure. G6E-NS11™ has been developed based on advanced proprietary technology that requires 15% 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. G6E-NS11™ epoxy is developed for general purpose applications requiring a bond or connection of electrically conductive components/materials that require good electrical conductivity. A heating oven is strongly recommended for curing.

#### **FEATURES:**

- Silver-Carbon Filled (Non-Magnetic)
- Excellent Electrical Conductivity
- Affordable Alternative to Pure Silver Epoxies
- Low Cost, Low Density
- Enhanced Bonding to Various Substrates:  
Glass, Metals, Plastics

#### **TYPICAL APPLICATIONS:**

- PCB Manufacture / Repair
- EMI / RFI Shielding
- Display Packaging / Bonding
- Electronics Manufacture / Repair
- Solder Replacement

#### **SPECIFICATIONS:**

**TWO COMPONENT SYSTEM:** Part A – smooth thixotropic 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 the product is cured at one of the following schedules:  
60 hours @ 25°C / 77°F  
3 hours @ 70°C / 158°F  
1 hour @ 150°C / 302°F

**DENSITY:** Part A 2.15–2.30 g/cm<sup>3</sup>  
Part B 2.30–2.40 g/cm<sup>3</sup>

**MIXED VISCOSITY:** 80 to 85 Pa·s @ 25°C / 77°F

**GLASS TRANSITION TEMPERATURE (T<sub>g</sub>):** 65°C / 149°F cured at 150°C / 302°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: >65 D

VOLUME RESISTIVITY: 0.0007  $\Omega$ ·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 standard use, and for 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™  
Graphene Laboratories, Inc.  
760 Koehler Avenue, Suite 2  
Ronkonkoma, NY 11779

Web: <https://g6-epoxy.com>  
Phone: 631-405-5115  
Fax: 781-287-1248  
Email: [support@graphenelab.com](mailto:support@graphenelab.com)

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**PATENT PENDING**

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