

# HIGH-TEMPERATURE SILVER/GRAPHENE CONDUCTIVE EPOXY, ROOM TEMPERATURE CURING

## G6E-HRSG™

**DESCRIPTION:** G6E-HRSG epoxy is intended for applications requiring a high-performance bond or connection of electrically conductive components/materials which operate at higher temperatures and require low electrical resistivity. G6E-HRSG cures at room temperature which eliminates the necessity for a heating oven, but

still maintains a high operating temperature. This allows for an easier and safer bond/connection of conductive components or materials. Graphene filler adds superior durability, fatigue, and crack resistance along with low electrical resistance.

**OPERATING TEMPERATURE: up to 260 °C (500F)**

### FEATURES:

Non-magnetic  
 Low electrical resistivity:  $<3 \times 10^{-4}$  Ohm·cm  
 Room Temperature curing  
 Good solvent and chemical resistance

### TYPICAL APPLICATIONS:

Photovoltaic (Solar) Cells  
 Casting, Coating & Encapsulation  
 EMI / RFI Shielding  
 Display Packaging / Bonding  
 Temperature Sensitive Electronics  
 Medical Devices / Sensors

### SPECIFICATIONS OF UNCURED MATERIAL:

TWO COMPONENT SYSTEM:

Part A – silver paste  
 Part B – silver paste

MIX RATIO:

5 (Part A) to 1 (Part B) by weight

POT LIFE:

30 minutes

CURING SCHEDULE:

8-10 hours @ 25°C / 77°F  
 30 minutes @ 80°C / 140°F  
 10 minutes @ 150°C / 302°F

DENSITY:

Part A 2.9 - 3.1 g/cm<sup>3</sup>  
 Part B 2.8 - 3.1 g/cm<sup>3</sup>

MIXED VISCOSITY:

300 - 350 Pa·s @ 25°C / 77°F



## SPECIFICATIONS OF CURED MATERIAL:

HARDNESS, SHORE:	>70 D
GLASS TRANSITION TEMPERATURE (T <sub>g</sub> ):	137 °C/ 279 °F
FLEXURAL MODULUS:	2.7-3.2 GPa at 25°C
LOSS MODULUS:	100-130 MPa at 25°C
VOLUME RESISTIVITY:	< 3x10 <sup>-4</sup> Ω·cm at 150°C curing temperature < 3x10 <sup>-3</sup> Ω·cm at 25°C curing temperature

## 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:	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.

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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