

1K SILVER-GRAPHENE ELECTRICALLY CONDUCTIVE EPOXY G6E-1KMSG™

DESCRIPTION: Single component G6E-1KMSG™ epoxy is developed for general purpose applications requiring high- performance bond or connection of electrically conductive components/materials that require low electrical resistivity. The system cures at 150°C / 302°F in 30-40 minutes. It does not cure at room temperature (25°C / 77°F), so it has an unlimited working time and there is no need for it to be stored frozen. Graphene fillers add superior durability, fatigue, and crack resistance along with low electrical resistance.

FEATURES:

Silver-Graphene Filled (Non-Magnetic) Excellent Electrical Conductivity Tough and Durable Convenient single component system Long working time

TYPICAL APPLICATIONS:

Wearable Electronics EMI / RFI Shielding PCB Manufacture / Repair Photovoltaic Cell Packaging Solder Replacement

SPECIFICATIONS OF UNCURED MATERIAL:

ONE COMPONENT SYSTEM: Smooth silver paste

CURING SCHEDULE: 1h 15min @ 120°C / 248°F or

30 min @ 150°C / 302°F

DENSITY: 2.9 - 3.1 g/cm³

VISCOSITY: 130 - 180 Pa·s @ 25°C / 77°F

SPECIFICATIONS OF CURED MATERIAL:

HARDNESS, SHORE: > 70 D

GLASS TRANSITION TEMPERATURE (Tg): 93°C/ 200 °F (cured at 120°C/248 °F)

FLEXURAL MODULUS 6.0-6.9 GPa at 25°C

LOSS MODULUS 150-200 MPa at 25°C

VOLUME RESISTIVITY: $<0.002 \Omega \cdot \text{cm} \text{ (cured at } 120 ^{\circ}\text{C}/248 ^{\circ}\text{F})$ $<0.0002 \Omega \cdot \text{cm} \text{ (cured at } 150 ^{\circ}\text{C}/302 ^{\circ}\text{F})$

GENERAL INFORMATION:

STORAGE & SHELF LIFE: 6 months @ 25°C / 77F or up to 12 months @0 -10°C/32F in unopened 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.

G6-EPOXY™

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