



G6E-FXSG™ FLEXIBLE SILVER-GRAPHENE ELECTRICALLY CONDUCTIVE EPOXY

Technical Data Sheet

DESCRIPTION: G6E-FXSG™ epoxy is primarily developed for applications requiring a high-performance flexible bond or connection of electrically conductive components/materials requiring low electrical resistivity. G6E-FXSG™ is well suited for bonding of dissimilar materials that are likely to be subjected to vibrations, temperature variations, shock from impact, bending, and mechanical stress. We use a proprietary mix of silver and graphene materials to formulate an adhesive with an outstanding combination of flexibility and low electrical resistivity. Graphene fillers add superior durability, fatigue and crack resistance along with low electrical resistance. A heating oven is strongly recommended for curing. Uses for G6E-FXSG™ epoxy include flexible circuits, medical sensor assembly and repair, etc.

FEATURES:

- Flexible (after curing)
- Silver-Graphene Filled (Non-Magnetic)
- Excellent Electrical Conductivity
- Tough and Durable
- Room Temperature / Oven Curable (depending upon desired cure time)

TYPICAL APPLICATIONS:

- Wearable Electronics
- Medical Sensors
- Fiber-Optics Packaging
- Flexible Electronics, Wiring & Harnesses
- Solder Replacement

SPECIFICATIONS:

TWO COMPONENT SYSTEM: Part A – smooth thixotropic silver paste
Part B – smooth thixotropic silver paste

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

POT LIFE: 1 hour

CURING SCHEDULE: Best results are obtained when the product is cured at one of the following schedules: 24 hours @ 25°C / 77°F **or**
3 hours @ 60°C / 140°F followed by 30 minutes @ 60°C / 140°F to 160°C / 320°F **or**
1 to 2 hours @ 60°C / 140°F to 160°C / 320°F

DENSITY: Part A 3.1 – 3.2 g/cm³
Part B 3.0 – 3.2 g/cm³

MIXED VISCOSITY: 110 to 125 Pa·s @ 25°C / 77°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.



GLASS TRANSITION
TEMPERATURE (T_g): 39°C / 102°F

HARDNESS, SHORE: >40 D

VOLUME RESISTIVITY: 0.0005 Ω·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: 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™
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

G6E-SG FXSG Rev. 1 – 08/2018

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.

Copyright © 2018 Graphene Laboratories, Inc. and its affiliates. All rights reserved.