



G6E-FRP™ FLEXIBLE CARBON-FILLED ELECTRICALLY CONDUCTIVE EPOXY

Technical Data Sheet

DESCRIPTION: G6E-FRP™ is a flexible version of our G6E-P™ general purpose epoxy. G6E-FRP™ epoxy was developed primarily for high-performance bonding, connection, sealing and coating applications requiring a flexible bond or connection of electrically conductive components or materials. G6E-FRP™ epoxy's properties result from being formulated with proprietary nanomaterials and fillers. G6E-FRP™ epoxy is low cost (compared with silver).

A heating oven is highly recommended during curing. Uses for G6E-FRP™ epoxy include flexible circuits, medical sensor assembly and repair and many other similar applications.

FEATURES:

- Flexible (after curing)
- Carbon Filled (Non-Metallic & Non-Magnetic)
- Electrically Conductive
- Resistant to Temperature Variations
- Low Cost, Low Density
- Corrosion Resistant

TYPICAL APPLICATIONS:

- Wearable Electronics
- Medical Sensors
- Flexible Photovoltaic (Solar) Cell Packaging
- Surface Acoustic Wave (SAW) Devices

SPECIFICATIONS:

TWO COMPONENT SYSTEM: Part A – smooth black paste
Part B – smooth black paste

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

POT LIFE: 2 hours

CURING SCHEDULE: Best results are obtained when the product is cured at one of the following schedules:
24 hours @ 25°C / 77°F
4 hours @ 80°C / 140°F
2 hours @ 120°C / 248°F

DENSITY: Part A 1.0 – 1.2 g/cm³
Part B 1.0 – 1.1 g/cm³

MIXED VISCOSITY: 285 to 295 Pa·s @ 25°C / 77°F

GLASS TRANSITION

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.



TEMPERATURE (T_g): 43°C / 109°F

HARDNESS, SHORE: >70 A

VOLUME RESISTIVITY: ~15 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: 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 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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