



G6-EPOXY™

FLEXIBLE NANOCARBON ELECTRICALLY CONDUCTIVE EPOXY

G6E-FRP™

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.

FEATURES:

- Non-magnetic; carbon filled
- Good electrical resistivity: <math><10\text{ Ohm}\cdot\text{cm}</math>
- Low Cost, Low Density
- Excellent gap-filling adhesive
- Impact / Shock Resistant
- Flexible (after curing)

SPECIFICATIONS OF UNCURED MATERIAL:

TWO COMPONENT SYSTEM:

Part A – smooth black paste
Part B – smooth black paste

MIX RATIO:

100 (Part A) to 100 (Part B) by weight

WORKING TIME:

1 - 2 hours

CURING SCHEDULE:

24 hours @ 25°C / 77°F or
3 hours @ 80°C / 176°F
45 min @ 150°C / 302°F

DENSITY:

Part A 1.0 - 1.2 g/cm³
Part B 1.0 - 1.1 g/cm³

MIXED VISCOSITY:

450 - 550 Pa·s @ 25°C / 77°F
gap plates = 900 μm, oscillation rate = 1.25 s⁻¹

We use a proprietary mix of high-performance nanocarbon filler to achieve superb electrical properties for a non-metallic electrically conductive epoxy.

Operating temperature is up to 120 °C.

TYPICAL APPLICATIONS:

- Photovoltaic (Solar) Cells
- Casting, Coating & Encapsulation
- EMI / RFI Shielding
- Display Packaging / Bonding
- Medical Devices / Sensors
- Solder Replacement



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SPECIFICATIONS OF CURED MATERIAL: cured at 80°C/176 °F

HARDNESS, SHORE:	>70 A
GLASS TRANSITION TEMPERATURE (Tg):	25°C / 75°F
FLEXURAL MODULUS	45 - 60 MPa at 25°C
LOSS MODULUS	45 - 60 MPa at 25°C
VOLUME RESISTIVITY:	<10 Ω·cm

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:	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.

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