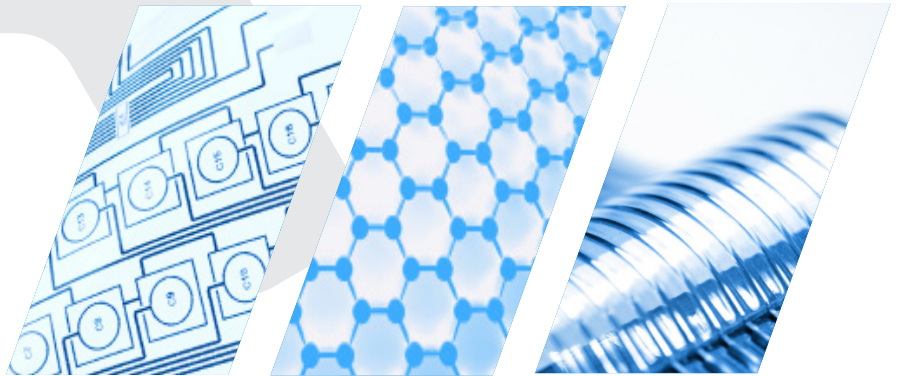


G6-EPOXY™



Flexible Silver/Graphene Conductive Epoxy G6E-FXSG

Intro

G6-FXSG™ is a flexible two-component electrically high-performance conductive adhesive well suited for bonding of dissimilar materials that are likely to be subjected to vibrations, temperature variations, shock from impact, bending, and mechanical stress. G6-FXSG™ Epoxy has been developed for applications that require flexible solderless interconnections such as wearable electronics, flexible wires, and sensors. We use a proprietary mix of silver and graphene materials to formulate an adhesive with outstanding combination of flexibility and low electrical resistivity. Graphene fillers add superior durability, fatigue and crack resistance along with low electrical resistance.

Key Features

- Flexible Silver/Graphene filled epoxy
- Excellent electrical conductivity:
0.0005 Ohm x cm
- Tough and Durable
- Easy to use: 1:1 mix ratio by weight
- Excellent adhesion to a variety of substrates.

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Product Information

TWO COMPONENT SYSTEM: : Part A – smooth thixotropic silver paste, Part B – smooth thixotropic silver paste. Mix 100 (Part A) to 100 (Part B) by weight.

CURING INSTRUCTIONS: Best results are obtained when the product is cured at one of the following rates: 24 hours @ 25°C, 3 hours @ 60°C followed by 30 minutes @ 140-160°C or 1-2 hours @ 140-160°C.

COLOR: Silver

POT LIFE: 1 hour

GLASS TRANSITION TEMPERATURE: 39°C

MIXED VISCOSITY: 110-125 Pa•sec at 25°C/77°F

HARDNESS, SHORE: > 40 D

VOLUME RESISTIVITY: ~ 0.0005 Ohm x cm

STORAGE: Shelf life: 12 months at 25°C in unopened, unmixed containers.

Stores and ships at room temperature – no freezing or dry ice required

MIXING INSTRUCTIONS: Stir both components before use. Add Part B to Part A and mix slowly until uniform in a separate container.

SAFETY & HANDLING: Please always read the SDS before use. Use the 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 the skin.

PACKAGING: G6E-FXSG™ Kits packaged in jars: Part A-15 g and Part B-15 g; Part A-25 g and Part B-25 g; Part A-40 g and Part B-40 g.

This epoxy can also be supplied in various different packaging based on customer's needs.

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Application notes

Modern electronics is no longer confined in two dimensions. A consumer expects electronic devices to be light, durable, inexpensive, and flexible. It requires materials that can fit into non-planar forms, or can fold and unfold for usage or storage. Emerging applications include smart textiles and packaging, disposable systems for operation in military and homeland security, medical sensing or low-cost portable diagnostics, paper-based microelectromechanical systems, flexible batteries/displays, and flexible conformal antenna arrays. G6E-FXGS™ epoxy is a perfect solder replacement for all the above applications.

G6E-FXGS™ is a two-component electrically conductive adhesive based on the mixture of graphene and silver particles engineered to combine high flexibility and excellent electrical/mechanical properties. This resin is perfect when heating of the components is undesirable or impractical, but the flexibility of the final bond is a must. The G6E-FXGS™ resin works well in a temperature range of -40°C to 160°C and exhibits excellent adhesion to a variety of materials including plastics, metals, glass and ceramics. It offers exceptional durability and excellent resistance to moisture, solvents and oxidants.

Potential applications include:

- Flexible high frequency shields, waveguides, circuits, membrane switches
- Flexible sensors, medical devices
- Attachment of electro-optical components
- Grounding, repair of defect traces / tracks or creating smooth jumpers on PCB board.
- Lightning Strike Protection and EMI/RFI Shielding
- Terminal attachment to solar cell panels
- Quick and inexpensive mounting of LEDs
- Conductive traces on 3D printed parts
- Radio-frequency identification (RFID) tags
- 3D antennas
- Smart textiles, wearable electronics
- Lower temperature bonding of electrical modules