

G6-EPOXY™



High-Temperature Silver/Carbon Conductive Epoxy G6E-HTNS (up to 315°C)

Intro

Our Conductive High-Temperature Silver/Carbon G6E-HTNS™ Epoxy has been developed for applications that require high-temperature operation (up to 600F), excellent moisture and chemical resistance. Our G6E-NS series of epoxies has been developed based on advanced proprietary technology that requires less silver content to be at par with leading silver based epoxies in terms of electrical properties. This improvement makes G6E-NS™ less dense, more flexible, and allows for stronger adhesion to the target substrate. Carbon fillers add superior durability, fatigue and crack resistance along with low electrical resistance.

Key Features

- High Temperature Silver/Carbon filled epoxy up to 315°C
- Extended Pot Life
- Excellent adhesion to a variety of substrates

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Product Information

TWO COMPONENT SYSTEM: Part A – smooth dark grey 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 schedules: 4 hours @ 150°C (302F). For optimum properties, post cure for 1-2 hours @ 180°C (350F).

COLOR: Silver Grey

POT LIFE: 4 hours

GLASS TRANSITION TEMPERATURE: 140°C

MIXED VISCOSITY: 220-230 Pa·sec at 25°C/77°F

HARDNESS, SHORE: >83D

VOLUME RESISTIVITY: ~ 0.003 Ohm x cm

OPERATING TEMPERATURE: up to 315°C (600F)

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 skin.

PACKAGING: Part A-20 g (packaged in a jar) and Part B-20 g and Part A-30 g (packaged in a jar) and Part B-30 g. This epoxy can also be supplied in various different packaging based on customer's needs.

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Application Notes

G6E-HTNS™ is a two-component electrically conductive adhesive that is engineered to combine bond strength and high electrical conductivity. The epoxy composite is based on the nanocarbon mixture and silver particles. The G6E-HTNS™ resin works in high temperature and demonstrates excellent adhesion to a variety of materials including plastics, metals, glass and ceramics. It offers superb resistance to moisture, solvents and oxidants as well as exceptional durability. The G6E-HTNS™ adhesive can be used as a solder replacement for applications where heating the component is undesirable.

Potential applications include:

- Solder replacement for high temperature applications
- Grounding
- Aerospace and Defense
- Electronics and Communication
- Automotive Industries
- Medical Instrumentation
- Repair of defective traces / tracks or creating smooth jumpers on PCB board
- Lightning Strike Protection and EMI/RFI Shielding
- High frequency shields, waveguides, 3D antennas
- Conductive traces on 3D printed parts
- Radio-frequency identification (RFID) tags