

## DATA SHEET: GER3000 RESIN and GEH4008 HARDENER EPOXY

**Description:** GER3000 Resin and GEH4008 Hardener is a two component unfilled epoxy with medium viscosity and good flow qualities. It has great-encapsulated properties for potting of electrical components, excellent mechanical properties, great adhesion, good chemical and environmental resistance, good thermal shock resistance and very low shrinkage. It has low exotherm during cure for filling large mass voids. It has excellent adhesion to metals, plastics and ceramics. Cures to a very flexible state and can be used for "cut-away" repair of parts.

**Uses:** Potting electrical components, encapsulating, power supplies, marine devices, also applications where "cut-away" is required.

Glenmarc epoxies have been the industry standard for potting of electrical components for over 20 years. They have been used in a multitude of electrical potting assemblies such as automotive, aerospace, military, and industrial components.

## Mixing and Cure Instructions:

Ratio by weight: Resin 100 Hardener 100 Pot life (100 gram mass at  $72^{\circ}F$ ) = 180 minutes

Cures to full in 24 hours

## Physical Properties (@ 72°F/ 22°C):

Color Available in Black or Clear Shore "A" hardness ASTM D2240 50 TO 60 Viscosity Resin 16.000 cps Viscosity Hardener 4,100 cps Viscosity Mixed 8,800 cps **Density Resin** 9.78 wpg Density Hardener 8.07 wpg Density mixed 8.89 wpg Specific gravity, Resin 1.17 Specific gravity, Hardener 0.96 Specific gravity mixed 1.06 Tensile strength 100 psi

Cure shrinkage 0.002 inches ( 0.0508mm)

Coefficient of Thermal Expansion 5.7x10(-6) in/in/°F

Temperature use range -50°F (130°C) to 250°F (121°C)

Shelf Life 1-1/2 Years

## **Electric Properties:**

Elongation

Volume Resistivity, applied voltage:500VDC@1 min. Ele per ASTM D257 2.0X10(15) ohms-cm

45%

Dielectic Constant, test frequency 1Mhz per ASTM D150 4.15

Dielectric Strength oil rate of rise (short time); 500 v/s per ASTM D149 540 v/mil

Dissipation Factor test frequency: 1MHZ per ASTM D150 0.026

Thermal conductivity BTU-in/hr ft sq-F° per ASTM C177 1.65

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