



DATA SHEET: GER3003 RESIN and GEH4003 HARDENER

Description: GER3003 Resin and GEH4003 Hardener is a filled, two component epoxy with medium viscosity and good flow qualities. It has excellent adhesion to metals, plastics and ceramics. It has great-encapsulated properties for potting of electrical components, excellent mechanical properties, great adhesion, good chemical and environmental resistance, and low shrinkage. Hardens to a tough, non-brittle system with great impact resistance. The hardener has a proprietary rubber additive, which helps aid in flexible characteristics such as extreme thermal shock resistance and flexibility, it has one of the highest rated thermal shock properties available in an epoxy This system has safe handling characteristics, low odor, low toxicity and good air release.

Uses: Potting electrical components, encapsulating, power supplies, transformers, etc.

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 50
Ratio by volume: Resin 1.20 Hardener 1
Pot life (100 gram mass at 72°F) = 180 minutes

Physical Properties (@ 72°F/ 22°C):

Color	Black
Shore "D" hardness ASTM D2240	80
Viscosity Resin	40,000 cps
Viscosity Hardener	7,500 cps
Viscosity Mixed	15,000 cps
Density Resin	13.6 wpg
Density Hardener	8.13 wpg
Density mixed	11.78 wpg
Specific gravity, Resin	1.65
Specific gravity, Hardener	0.975
Tensile strength	2,800psi
T-Peel strength	25 pli
Coefficient of Thermal Expansion	40x10(-8) mm/mm°C
Maximum use temperature	300°F (149°C)
Deflection temperature	165°F (74°C)
Shelf Life	1 Year

Electric Properties:

Volume Resistivity, applied voltage:500VDC@1 min. Ele per ASTM D257	1.25X10(15) ohms-cm
Dielectric Constant, test frequency 1Mhz per ASTM D150	5.0
Dielectric Strength oil rate of rise (short time); 500 v/s per ASTM D149	490 v/mil
Dissipation Factor test frequency: 1MHZ per ASTM D150	0.028
Thermal conductivity BTU-in/hr ft sq-F° per ASTM C177	11.00

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