

DATA SHEET: GER3004 RESIN and GEH4008 HARDENER SHORE A 20 EPOXY

Description: GER3004 Resin and GEH4008 Hardener is a two component unfilled epoxy with low viscosity and good flow qualities. The low viscosity helps aid in the filling of difficult void areas and releasing of air bubbles. 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 80		
Ratio by volume: Resin 1	Hardener 0.92		
Pot life (100 gram mass at 72°F) =	180-240 minutes		
Physical Properties (@ 72°F/ 22°C):			
Color	Available in Black or (Clear	
Shore "A" hardness ASTM D2240	20		
Viscosity Resin	900 cps		
Viscosity Hardener	4,100 cps		
Viscosity Mixed	1,800 cps		
Density Resin	9.20 wpg		
Density Hardener	8.07 wpg	8.07 wpg	
Density mixed	8.80 wpg		
Specific gravity, Resin	1.10		
Specific gravity, Hardener	0.96		
Specific gravity mixed	1.06		
Tensile strength	100 psi		
Elongation	>100%		
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:			
Volume Resistivity, applied voltage:500VDC@1 min. Ele per ASTM D257		2.0X10(15) ohms-cm	
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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