



# SolEpoxy™ MG50

## Low Coefficient of Thermal Expansion

RECOMMENDED MOLDING CONDITION		
Preheat Temperature, °C	70-90	
Molding Temperature, °C	145-200	
Molding Pressure, psi	100-1500	
Curing Time, 1/8-inch section, seconds		
	@ 170 °C	75 - 90
	@ 150 °C	90 - 120
Post Cure Time, hours @ 150 °C	2	

UNCURED PROPERTIES	
Color	Black
Spiral Flow, cm	@177 °C 25
Hot Plate Gel Time, sec.	@ 177 °C 20

CURED PROPERTIES		
Tg, 2 hrs PMC @ 177 °C	160	
Coefficient of Thermal Expansion,		
	Alpha 1, ppm	8
	Alpha 2, ppm	28
Heat Deflection Temperature, 1.8 MPa	215°C	
Specific Gravity, g/cc	1.9	
Flexural Strength, psi	131 (19,000)	
Flexural Modulus, psi	25	
Shrinkage, %	0.2	
Electrical Properties @ 25 °C		
Volume Resistivity, 500 Volts, ohm-cm	1x10E6	
Surface Resistivity, 500 volts, ohm	1x10E6	
Dielectric Strength, kV/mm	48	

<sup>1</sup>All measurements taken on specimens cured for two minutes at 175 °C with post cure of 2 hours at 175 °C unless otherwise specified.

- ▶ For safety-related handling information, consult the product *Safety Data Sheet (SDS)* available at [www.solepoxy.com](http://www.solepoxy.com).

### PRODUCT DESCRIPTION

SolEpoxy™MG50 is an Epoxy Molding Compound formulated for very low CTE1, high Tg and high flex strength. It also has low shrinkage, a high degree of stiffness and enhanced chemical resistance.

### ADVANTAGES

- ▶ Dimensional stability at elevated temperatures
- ▶ Designed for Machinability
- ▶ Superior chemical resistance
- ▶ Very low moisture absorption
- ▶ Over-mold for ceramic, glass or metal

### STORAGE

- ▶ SolEpoxy™ powder products are sensitive to heat and moisture. To protect the material, we package to prevent moisture contamination and we recommend refrigeration during shipping and handling.
- ▶ Do not open packaging while the product is colder than the manufacturing room temperature! If this is done, moisture will condense on the product surface. This moisture exposure could damage the powder and result in processing issues including incomplete curing.
- ▶ Long-term exposure to heat will reduce product life, which could necessitate changing your process parameters. SolEpoxy recommends that products be stored at or below 10°C / 50°F to maximize shelf life.

### NOTICE TO SPECIFIERS

The data values reported here represent typical or historical averages based on our internal testing. All measurements taken at 21 °C unless otherwise noted. It is the users' responsibility to determine suitability for use, process, and purpose. We recommend that each user test their proposed application using this data as a guide. SolEpoxy will offer best efforts to support application engineers.