

## Parker Chomerics THERM-A-FORM T646 Cure-in-Place Potting and Underfill Material

Category : Polymer , Thermoset , Silicone

### Material Notes:

Description: THERM-A-FORM™ thermally conductive silicone elastomer products are dispensable form-in-place compounds designed for heat transfer without excessive compressive force in electronics cooling applications. These versatile liquid reactive materials can be dispensed and cured into complex geometries for cooling of multi-height components on a PCB without the expense of a molded sheet.

Each compound is available in ready-to-use cartridge systems, eliminating weighing, mixing, and degassing procedures. Product Attributes:

Provides combination of high thermal performance and low cost Information provided by Chomerics

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Parker-Chomerics-THERM-A-FORM-T646-Cure-in-Place-Potting-and-Underfill-Material.php](http://www.lookpolymers.com/polymer_Parker-Chomerics-THERM-A-FORM-T646-Cure-in-Place-Potting-and-Underfill-Material.php)

Physical Properties	Metric	English	Comments
Specific Gravity	2.45 g/cc	2.45 g/cc	ASTM D792
Viscosity	3.0 cP	3.0 cP	ASTM D2196
Outgassing - Total Mass Loss	0.10 %	0.10 %	CVCM; ASTM D595
	0.17 %	0.17 %	TML; ASTM D595

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	50	50	ASTM D2240

Thermal Properties	Metric	English	Comments
CTE, linear	250 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	139 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	ASTM E831
Specific Heat Capacity	1.00 J/g $\cdot^\circ\text{C}$	0.239 BTU/lb $\cdot^\circ\text{F}$	ASTM E1269
Thermal Conductivity	0.900 W/m-K	6.25 BTU-in/hr-ft $^2\cdot^\circ\text{F}$	ASTM D5470
Maximum Service Temperature, Air	150 $^\circ\text{C}$	302 $^\circ\text{F}$	
Minimum Service Temperature, Air	-50.0 $^\circ\text{C}$	-58.0 $^\circ\text{F}$	
Brittleness Temperature	-55.0 $^\circ\text{C}$	-67.0 $^\circ\text{F}$	ASTM D2137
Flammability, UL94	HB	HB	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+14 ohm-cm	1.00e+14 ohm-cm	ASTM D257
Dielectric Constant	6.5	6.5	ASTM D150

Electrical Properties	@Frequency 1.00e+6 Metric Hz	@Frequency 1.00e+6 English Hz	Comments
Dielectric Strength	10.0 kV/mm	254 kV/in	ASTM D149
Dissipation Factor	0.013 @Frequency 1.00e+6 Hz	0.013 @Frequency 1.00e+6 Hz	Chomerics

Processing Properties	Metric	English	Comments
Cure Time	3.00 min	0.0500 hour	
	@Temperature 150 °C	@Temperature 302 °F	
	60.0 min	1.00 hour	
	@Temperature 60.0 °C	@Temperature 140 °F	
	2880 min	48.0 hour	
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Pot Life	300 min	300 min	2X Starting Viscosity
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Shelf Life	3.00 Month	3.00 Month	From date of Manufacture

Descriptive Properties	Value	Comments
Binder	Silicone	
Color	Yellow	
Extractable Silicone	0.15	
Filler	Aluminum Oxide	
Mix Ratio	1:1	
Number of Components	2-part	

## Contact Songhan Plastic Technology Co.,Ltd.

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