

# THERM-A-GAP™ TC50

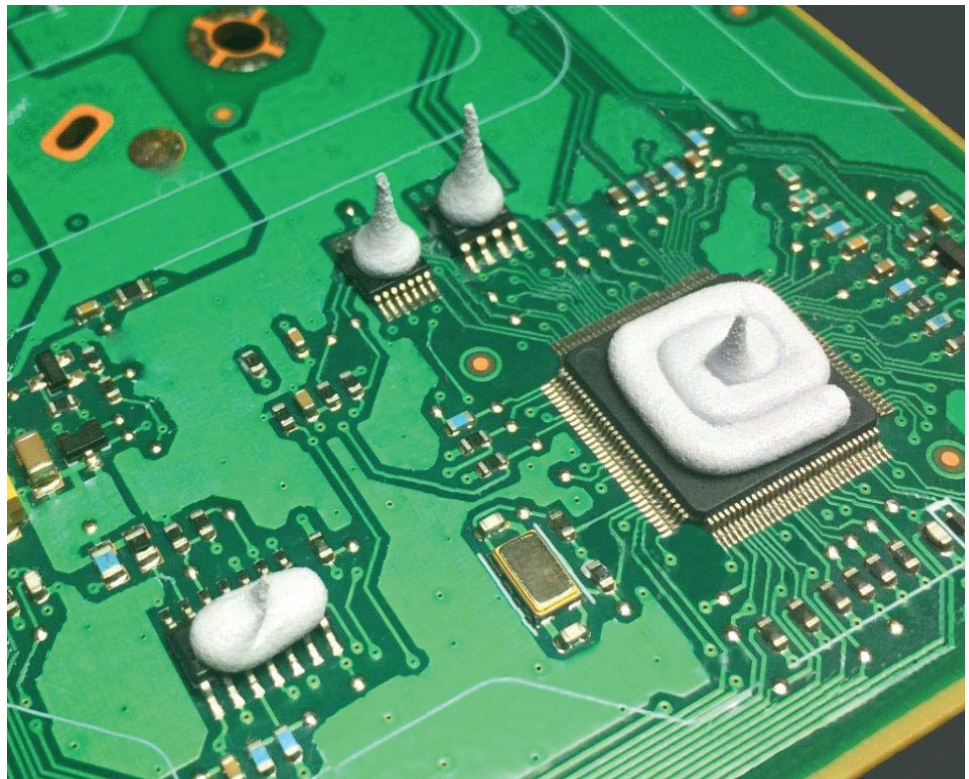
## DISPENSABLE THERMAL PUTTY



### Customer Value Proposition:

TC50 is a high performance, one component, dispensable thermal compound developed to conduct heat between a hot component and a heat sink or enclosure. The TC50 compound provides low thermal impedance at multiple gaps to allow the use of common heat spreaders. The material's heavy paste-like consistency enables controlled dispensing, applied in variable thicknesses to suit application needs. TC50 requires low compressive force to deform under assembly pressure subjecting components, solder joints and leads to minimal stresses.

This one component material is formulated to accommodate today's high performance electronics and is ideal for automated dispensing machines, rework and field repair situations.



### Contact Information:

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### Features and Benefits:

- Thermal conductivity: 5.0 W/m-K
- Easily Dispensed
- No secondary curing required
- Low Thermal Impedance
- Ultra-low compression force
- Reworkable
- Able to accommodate a variety of bond line applications

### Typical Applications:

- Automotive Electronic Control Units
- Power Supplies and Semiconductors
- Memory and Power Modules
- Microprocessors
- Consumer Electronics

### Packaging and Handling:

Material may be packaged in syringes, cartridges or bulk packaged in pails.

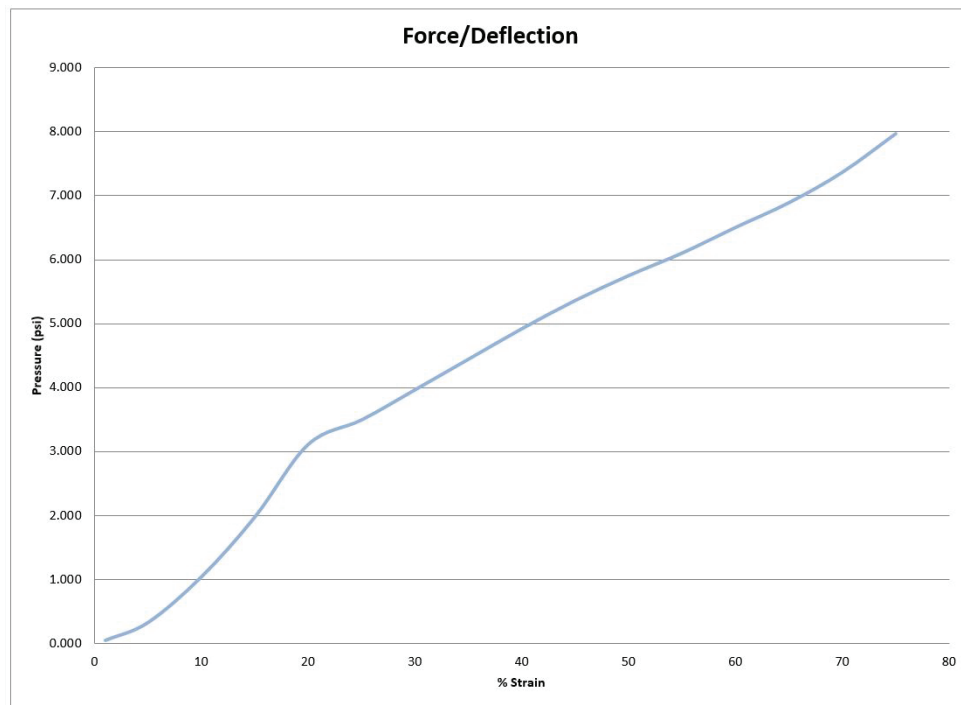


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# Product Information

## Dispensable Thermal Putty TC50

Dispensable Thermal Putty			
	Typical Properties	TC50	Test Method
Physical	Color	Gray	Visual
	Flow Rate, grams/min - 30cc syringe with no tip attachment 0.100" orifice, 90psi (621 kPa)	10	Chomerics
	Specific Gravity	3.25	ASTM D792
	Percent Deflection @ Various Force Levels	See graph	Modified ASTM C165 Dispensed 1.0 cc of material. 1" x 1" probe down to 0.100" Test rate 0.025 in/min
	Minimum bondline thickness, in (mm)	0.006 (.15)	Chomerics
Thermal	Thermal Conductivity, W/m-K	5.0	ASTM D5470
	Heat Capacity, J/g-K	1	ASTM E1269
	Coefficient of Thermal Expansion, ppm/K	150	ASTM E831
	Operating Temperature Range, °F (°C)	-67 to 392 (-55 to 200)	Chomerics
Electrical	Dielectric Strength, Vac / mil (KVac/mm)	200 (8)	ASTM D149
	Volume Resistivity, ohm-cm	10 <sup>14</sup>	ASTM D257
	Dielectric Constant @100 kHz @ 1mm	6.8	ASTM D150 (5mm probe)
	Dissipation Factor @ 100 kHz @ 1mm	0.022	Chomerics
Regulatory	Flammability Rating	V-0	UL 94
	RoHS Compliant	Yes	Chomerics Certification
	Outgassing, % TML (%CVCM)	0.07 (0.01)	ASTM E595
	Shelf Life, months from date of manufacture	18	Chomerics



[www.chomerics.com](http://www.chomerics.com)  
[www.parker.com/chomerics](http://www.parker.com/chomerics)

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