

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# THERM-A-GAP™ Gels

# Dispensable, Very Low Compression Force, Thermal Gap Fillers



## **Description**

THERM-A-GAP™ Gels are highly conformable, pre-cured, single-component compounds. The cross-linked gel structure provides superior long term thermal stability and reliable performance. These unique materials result in much

lower mechanical stress on delicate components than even the softest gap-filling sheets. They are ideal for filling variable gaps between multiple components and a common heat sink.

### Features / Benefits

- Dispensable
- Fully cured
- Highly conformable at low pressures
- No refrigeration, mixing or filler settling issues in storage
- Single dispensable TIM can eliminate multiple pad part sizes/numbers
- Reworkable

## **Typical Applications**

- Automotive electronic control units (ECUs)
  - Engine control
  - Transmission control
  - Braking/traction control
- Power conversion equipment
- Power supplies and uninterruptible power supplies
- Power semiconductors
- MOSFET arrays with common heat sinks
- Televisions and consumer electronics

THERM-A-GAP™ Dispensed Thermal Gels						
	Typical Properties	T630/T630G	T635	T636	Test Method	
	Color	White	White	Yellow	Visual	
	Flow Rate, cc/min - 30cc taper tip, 0.130" orifice, 90psi (621 kPa)	10	8	8	Chomerics	
	Specific Gravity	2.25	1.50	1.20	ASTM D792	
Physical	Percent Deflection @ Various Pressures (0.5 psi) (1 psi) (2 psi) (3 psi) (4 psi) (5 psi)	% Deflection 36 47 54 59 63	% Deflection 13 33 43 50 56	% Deflection 6 23 35 43 48	Modified ASTM C165 Dispensed 1.0 cc of material Brought 1" x 1" probe down to 0.100" Test rate 0.025 in/min	
	Typical minimum bondline thickness, in (mm)	0.004 (0.10)/ 0.010 (0.25)	0.015 (0.38)	0.015 (0.38)		
	Thermal Conductivity, W/m-K	0.7	1.7	2.4	ASTM D5470	
Thermal	Heat Capacity, J/g-K	1.1	0.9	0.9	ASTM E1269	
	Coefficient of Thermal Expansion, ppm/K	350	400	400	ASTM E831	
	Operating Temperature Range, °F (°C)	-67 to 392 (-55 to 200)	-67 to 392 (-55 to 200)	-67 to 392 (-55 to 200)		
al	Dielectric Strength, V <sub>AC</sub> / mil (KV <sub>AC</sub> /mm)	200 (8.0)	200 (8.0)	200 (8.0)	ASTM D149	
Electrical	Volume Resistivity, ohm-cm	1014	1014	1014	ASTM D257	
Elec	Dielectric Constant @1,000 kHz	5.5	4.0	4.0	ASTM D150	
	Dissipation Factor @ 1,000 kHz	0.010	0.003	0.003	Chomerics	
Regulatory	Flammability Rating (See UL File E140244 for Details)	V-0	Not Tested	V-0	UL 94	
	RoHS Compliant	Yes	Yes	Yes	Chomerics Certification	
	Outgassing, % TML (%CVCM)	0.55 (0.14)	Not Tested	0.49 (0.18)	ASTM E595	
	Shelf Life, months from date of manufacture	18	18	18	Chomerics	



### **Product Attributes**

### T630 / T630G

- Years of proven reliability in high-volume automotive applications
- General use material
- Good thermal performance
- Lowest deflection force required
- Minimal stress on components
- "G" version has 0.010" glass beads as compression stops for electrical isolation

#### T635

- Excellent thermal performance
- Low deflection force required
- Minimal stress on components

#### T636

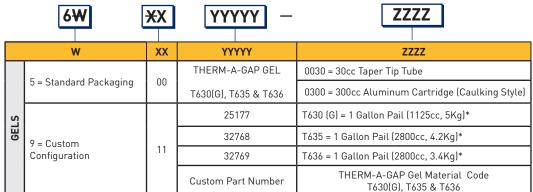
- Superior thermal performance
- Solves the toughest heat transfer problems
- Low deflection force required
- Minimal stress on components



Consult Applications Engineering for automated dispensing equipment recommendations

## Ordering Information

These materials are available in the following formats. Contact Chomerics for custom packaging sizes, etc.





\*High volume dispensing equipment required. Please contact Applications Engineering for additional support. Other custom container sizes may be available upon request

Dispensing Equipment Options	Optional Supplier	Description			
Hand-Gun Pneumatic Dispensing 300cc cartridges	-Gun Pneumatic Dispensing 300cc cartridges Bergdahl Associates				
Hand-Gun Pneumatic Dispensing 180cc (6oz) cartridges	Bergdahl Associates	Model 250A-6oz Sealant Gun			
http://www.bergdahl.com					
Pneumatic Shot Size Controllers	EFD	Ultra 2400 Series			
c, 180cc and 300cc Shot Size Dispensing Equipment		Ultra 1400 Series			
		Ultra 870 Series			
30cc/55cc Adapter Assembly	EFD	10000D5152			
Dispensing Sleeve to support 6oz (180cc) Semco Tubes	EFD	5192-6			
http://www.efd-inc.com					

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