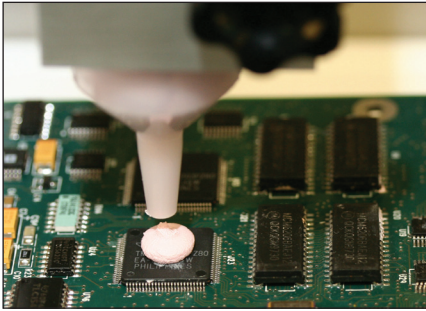


THERM-A-GAP™ Gels

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
Physical	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
	Percent Deflection @ Various Pressures (0.5 psi)	% Deflection	% Deflection	% Deflection	Modified ASTM C165 Dispensed 1.0 cc of material Brought 1" x 1" probe down to 0.100" Test rate 0.025 in/min
	(1 psi)	--	--	--	
	(2 psi)	36	13	6	
(3 psi)	47	33	23		
(4 psi)	54	43	35		
(5 psi)	59	50	43		
Typical minimum bondline thickness, in (mm)		0.004 (0.10)/ 0.010 (0.25)	0.015 (0.38)	0.015 (0.38)	--
Thermal	Thermal Conductivity, W/m-K	0.7	1.7	2.4	ASTM D5470
	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)	--
Electrical	Dielectric Strength, V _{AC} / mil (KV _{AC} /mm)	200 (8.0)	200 (8.0)	200 (8.0)	ASTM D149
	Volume Resistivity, ohm-cm	10 ¹⁴	10 ¹⁴	10 ¹⁴	ASTM D257
	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

THERM-A-GAP™ Dispensed Thermal Gels

Product Attributes

T630 / T630G

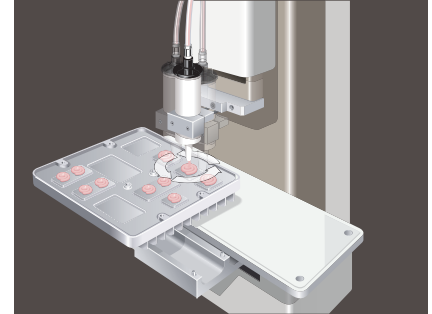
- Years of proven reliability in high-volume automotive applications
- General use material
- Good thermal performance
- Lowest deflection force required
- Minimal stress on components
- "G" version has 0.010" glass beads as compression stops for electrical isolation

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.

		6W	XX	YYYYY	—	ZZZZ
		W	XX	YYYYY		ZZZZ
GELS	5 = Standard Packaging		00	THERM-A-GAP GEL T630(G), T635 & T636		0030 = 30cc Taper Tip Tube 0300 = 300cc Aluminum Cartridge (Caulking Style)
	9 = Custom Configuration		11	25177		T630 (G) = 1 Gallon Pail (1125cc, 5Kg)*
				32768		T635 = 1 Gallon Pail (2800cc, 4.2Kg)*
				32769		T636 = 1 Gallon Pail (2800cc, 3.4Kg)*
			Custom Part Number			THERM-A-GAP Gel Material Code T630(G), T635 & T636



*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	Bergdahl Associates	Semco Model 550
Hand-Gun Pneumatic Dispensing 180cc (6oz) cartridges	Bergdahl Associates	Model 250A-6oz Sealant Gun
http://www.bergdahl.com		
Pneumatic Shot Size Controllers 30cc, 180cc and 300cc Shot Size Dispensing Equipment	EFD	Ultra 2400 Series
		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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