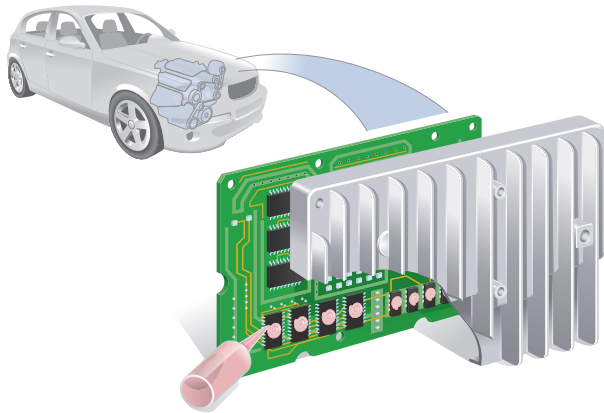


THERM-A-GAP™ GEL 8010 & GEL30

High Performance Fully Cured Dispensable GELS



Description

Parker Chomerics fully cured dispensable GELs eliminate timeconsuming hand assembly, decreasing installation costs and reducing customer manufacturing and purchasing (logistical) complexity. These products require no mixing or curing, providing superior design flexibility.

- Provides low thermal impedance at thin and thick gaps, allowing use of common heat spreaders
- Lower temperature increases product life, typically a doubling of life based on every 10°C decrease in temperature.
- Deflects easily under very low compressive forces, decreasing stress on components thus decreasing component failures.

Typical Applications

- Automotive Electronic Control Units (ECU's)
- Power Supplies & Semiconductors
- Memory & Power Modules
- Microprocessors / Graphics Processors
- Flat Panel Displays & Consumer Electronics

Features/Benefits

- Easily dispensable
- Fully-cured / No pump out
- High bulk thermal conductivity
- Low thermal impedance
- Ultra low compression force
- High tack surface & reworkable
- Proven long-term reliability

Typical Properties		GEL 8010	GEL 30	Test Method
Physical	Color	White	Light Pink	Visual
	Flow Rate, grams/min - 30cc syringe with no tip attachment 0.100" orifice, 90psi (621 kPa)	60	20	Chomerics
	Specific Gravity	2.70	3.20	ASTM D792
	Percent Deflection @ Various Force Levels (refer to plot) (See graph below)	% 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
	Typical minimum bondline thickness, in (mm)	0.002 (0.05)	0.004 (0.10)	--
Thermal	Thermal Conductivity, W/m-K	3.0	3.5	ASTM D5470
	Heat Capacity, J/g-K	1	1	ASTM E1269
	Coefficient of Thermal Expansion, ppm/K	150	150	ASTM E831
	Operating Temperature Range, °F (°C)	-67 to 392 (-55 to 200)	-67 to 392 (-55 to 200)	--
Electrical	Dielectric Strength, Vac / mil (KVac/mm)	200 (8.0)	200 (8.0)	ASTM D149
	Volume Resistivity, ohm-cm	10 ¹⁴	10 ¹⁴	ASTM D257
	Dielectric Constant @100 kHz	6.3	7.0	ASTM D150
	Dissipation Factor @ 100 kHz	0.002	0.002	Chomerics
Regulatory	Flammability Rating	V-0	V-0	UL 94
	RoHS Compliant	Yes	Yes	Chomerics Certification
	Outgassing, % TML (CVCM)	1.33 (0.34)	0.15 (0.05)	ASTM E595
	Shelf Life, months from date of manufacture	18	18	Chomerics

GEL 8010 & GEL 30 Thermally Conductive Dispensable Gels

Product Attributes

GEL 8010

- Thin bondline gel (approximately 2-10 mils)
- Low thermal impedance gel
- Stencil printable with no pump out
- Ideal for high-volume dispensing
- Proven long-term reliability

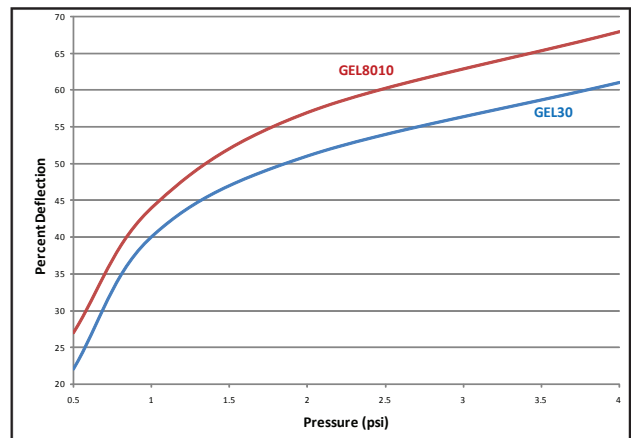
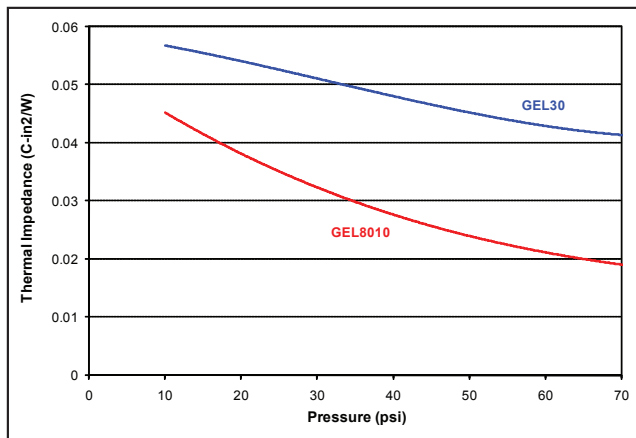
GEL 30

- Accommodates a variety of bond line thicknesses for application to multiple devices
- Moderate bondline gel (approximately 4-40+ mils)
- High Bulk Thermal Conductivity
- Excellent performance-to-price
- Compatible with high volume, automated dispense processes
- Meets Telcordia (Bellcore) silicone specifications

Installation Guidelines

Thermal gels are supplied in plastic syringes and aluminum cartridges. Apply pressure to the rear of the cartridge, simply dispense the desired amount onto components or cooling plates. The gel is reworkable and excess material can be easily wiped off with a rag.

Since GEL 8010 gel is conformable, the gel can be stencil printed onto the plates. The thickness of the printed gel can be adjusted depending on the component type and size, but about 6mil thickness is recommended.



Ordering Information

Standard Part Numbers		
GEL8010	GEL30	Description
65-00-GEL8010-0001	65-00-GEL30-0001	1 cc Syringe
65-00-GEL8010-0030	65-00-GEL30-0030	30 cc tapered-tip syringe. Fits EFD-type adapter
65-00-GEL8010-0180	65-00-GEL30-0180	180cc Semco® cartridge
65-00-GEL8010-0300	65-00-GEL30-0300	300 cc aluminum caulking cartridge. Fits electric, pneumatic, and other caulking guns.
65-00-GEL8010-3790	65-00-GEL30-3790	3,790 cc's in a straight-wall pail
Dispensing Equipment Options		Optional Supplier
Hand-Gun Pneumatic Dispensing 300cc cartridges		Bergdahl Associates
Hand-Gun Pneumatic Dispensing 180cc (6oz) cartridges		Bergdahl Associates
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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