



## PRODUCT DESCRIPTION

Tgel™ 600 is an all-in-one dispensable that can be used in minimum bond-line, constant pressure applications (grease) and used as a thick gap filler in a constant gap up to 2mm (dispensable gap filler/gel/putty). This would simplify operations by consolidating TIM materials and increases throughput dispensing only one material instead of multiple materials or placing pads. As a thermal grease Tgel™ 600 offers superior performance (lowest thermal resistance) and reliability (least pump-out) compared to competitive greases. Tgel™ 600 further can fill small, fixed gap applications <150µm where neither thermal grease nor dispensable gap fillers can.

## FEATURES & BENEFITS

- Cools most demanding components like a grease while maintaining large are gap stability for secondary components.
- 6.4 W/mK bulk thermal conductivity
- Extremely Low pump out
- Optimized dispensing flowability
- Easy rework

## MARKETS

- Semiconductor Packaging
- Graphics Card
- Notebooks
- Servers
- IGBTs
- Power Semi-Conductors
- Memory Modules
- Telecom Systems

## AVAILABILITY

- Cans
- Pails
- Cartridges
- Syringes

## STORAGE CONDITIONS

- Storage:
  - pail or can: 15C to 35C
  - cartridge or syringe: 15C to 35C, <50%RH
- Shelf Life:
  - Can and pails: 24 months unopened stored under 40C
  - Once the Can or Pail is opened (and resealed): 6 months stored at 15C to 35C <50%RH.
  - In Syringes and Cartridges: 6 months stored at 15C to 35C <50%RH.

## TYPICAL PROPERTIES

PROPERTY	Tgel 600	TEST METHOD
<b>Construction</b>	Filled Silicone Dispensable	N/A
<b>Color</b>	Grey	Visual
<b>Density</b>	2.63 g/cc	Helium Pycnometer
<b>Flow Rate, 75cc Cartridge</b>	18cc/min or 49g/min	60 psi with 0.125" I.D. tip
<b>Flow Rate, 30cc Syringe</b>	10cc/min or 26g/min	90 psi, no tip
<b>Thixotropic Index</b>	5	Rheometer
<b>Bulk Thermal Conductivity</b>	6.4 W/m-K	Hot Disk
<b>Thermal Resistance</b>		
<b>10 psi &amp; 50°C</b>	0.082 °C-cm <sup>2</sup> /W	ASTM D5470
<b>50 psi &amp; 50°C</b>	0.065 °C-cm <sup>2</sup> /W	
<b>Constant gap of 0.1mm</b>	0.25 °C-cm <sup>2</sup> /W	
<b>Constant gap of 1.0mm</b>	1.50 °C-cm <sup>2</sup> /W	
<b>Operating Temperature Range</b>	-40°C to 125°C	Laird Test Method
<b>Minimum BLT</b>	~20µm	Laird Test Method
<b>Peak Force</b>	< 48N (12.5 mm/min)	Laird Test Method
<b>Residual Force</b>	< 6N	
<b>Dielectric Constant</b>	70 @1KHz/1MHz/1GHz	ASTM D150
<b>Volume Resistivity</b>	1x10 <sup>11</sup> Ω-cm	ASTM D991
<b>UL Recognition</b>	V0	UL94

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