



SOFT, SILICONE PUTTY

Tputty™ 506 is a soft, single part, silicone putty thermal gap filler in which no cure is required. This gap filler is ideal for applications where large gap tolerances are present and in which traditional gap filler pads may apply added pressure on components. This material can be dispensed to fill large and uneven gaps in assemblies.

Tputty™ 506 has a composition which yields superior thermal performance and super compliancy. This material transfers little to no pressure between interfaces. Because Tputty™ 506 is more viscous than grease, bleed and pump-out usually associated with grease is eliminated. Specialized rheology allows for easy flow under pressure. Tputty™ 506 is non-abrasive which leads to less wear on dispensing equipment and therefore reduced equipment maintenance/repair costs.

FEATURES AND BENEFITS

- Soft and compliant transferring little to no pressure between interfaces
- Non-abrasive
- 3.5 W/mK thermal conductivity
- Available in 75 cc, 180 cc, 360 cc and 600 cc dispensing cartridges
- Available in 20 kg pails
- Easily dispensable from an EFD dispensing system

APPLICATIONS

- Microprocessors
- Graphic chips
- Automotive
- LED lighting

	Tputty™ 506	TEST METHOD
Construction & Composition	Fully Cured Ceramic-filled dispensable silicone putty	
Color	Turquoise	Visual
Flow Rate (75 cc taper tip, 0.125" orifice, 90 psi)	17.2 cc/min	Laird Technologies
Temperature Range	-45°C to 200°C	
Thermal Conductivity	3.5 W/mK	Hot Disk
Abrasiveness of Predominant Filler	2	Mohs hardness scale
Density	1.71 g/cc	He Pycnometer
Volume Resistivity	1.8×10^{14} Ohm-cm	ASTM D2240
Minimum Bondline thickness mm (in)	0.1 (0.004)	ASTM D575
Outgassing TML, weight percent	0.46%	ASTM E595
Outgassing TML, volume percent	0.79%	ASTM E595
Coefficient of Volumetric Expansion (CVE)	680 ppm/K	Volume Dilatometry
Coefficient of Thermal Expansion (CTE)	227 ppm/K	Volume Dilatometry
Tg	< -90°C	ASTM E1356
Dielectric Constant (1 mHz)	5.3	ASTM D150
Specific Heat	0.85 J/gK	ASTM E1269
Flammability	VO	UL 94

Data for design engineer guidance only. Observed performance varies in application. Engineers are reminded to test the material in application.

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