Laird TECHNOLOGIES

Innovative **Technology** for a **Connected** World

Tputty™ 502 Series



CREATES COMPRESSION OF INTERFACE MATERIAL

Tputty™ 502 is the best material for applications where large tolerance differences create the need for compression of the interface material beyond 50% of its original thickness.

Tputty™ 502 will flow and ensure low pressures on the components being cooled. In conjunction with outstanding compression characteristics, Tputty™ 502 has a high thermal conductivity, resulting in very low thermal resistance.

Tputty™ 502 is naturally tacky and requires no additional adhesive coating that can inhibit thermal performance.

FEATURES AND BENEFITS

- Soft and ultra high compressibility for low stress applications
- 3 W/mK thermal conductivity
- Available in sheets 0.020" - 0.200" (0.5mm - (5.0mm) thick and in bulk
- Naturally tacky needing no further adhesive coating

APPLICATIONS

- Cooling components to the chassis or frame
- Entire large panel PCB cooling
- Semiconductor automated test equipment (ATE)
- Any high compression low stress application

global solutions: local support™

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Tputty™ 502 Series

	Tputty™ 0.020	Tputty™ 0.040	Tputty™ 0.060	Tputty™ 0.080	Tputty™ 0.100	TEST METHOD
Construction & Composition	Reinforced boron nitride filled silicone elastomer	Reinforced boron nitride filled silicone elastomer	Reinforced boron nitride filled silicone elastomer	Reinforced boron nitride filled silicone elastomer	Reinforced boron nitride filled silicone elastomer	
Color	White	White	White	White	White	Visual
Thickness	0.020" (0.51mm)	0.040" (1.02mm)	0.060" (1.52mm)	0.080" (2.03mm)	0.100" (2.54mm)	
Thickness Tolerance	± 0.002" (± 0.05mm)	± 0.003" (± 0.08mm)	± 0.004" (± 0.10mm)	± 0.004" (± 0.10mm)	± 0.005" (± 0.13mm)	
Specific Gravity	1.39 g/cc	1.38 g/cc	1.37 g/cc	1.37 g/cc	1.36 g/cc	Helium Pycnometer
Hardness *without fiberglass	05 Shore OO	05 Shore OO	05 Shore OO	05 Shore OO	05 Shore OO	ASTM D2240
Outgassing TML (Post Cured)	0.11%	0.11%	0.11%	0.11%	0.11%	ASTM E595
Outgassing CVCM (Post Cured)	0.06%	0.06%	0.06%	0.06%	0.06%	ASTM E595
Temperature Range	-45°C to 200°C	-45°C to 200°C	-45°C to 200°C	-45°C to 200°C	-45°C to 200°C	
Thermal Conductivity	3 W/mK	3 W/mK	3 W/mK	3 W/mK	3 W/mK	ASTM D5470 (modified)
Thermal Impedance @ 10 psi @ 69KPa	0.44 °C-in^2/W 2.84 °C-cm^2/W	0.49 °C-in^2/W 3.16 °C-cm^2/W	0.53 °C-in^2/W 3.42 °C-cm^2/W	0.58 °C-in^2/W 3.74 °C-cm^2/W	0.62 °C-in^2/W 4.00 °C-cm^2/W	ASTM D5470 (modified)
Thermal Expansion	92 ppm/C	92 ppm/C	92 ppm/C	92 ppm/C	92 ppm/C	IPC-TM-650 2.4.24
Breakdown Voltage	2000 Volts AC	4000 Volts AC	>5000 Volts AC	>5000 Volts AC	>5000 Volts AC	ASTM D149
Volume Resistivity	5 x 10^{13} ohm-cm	5 x 10^{13} ohm-cm	5 x 10^{13} ohm-cm	5 x 10^{13} ohm-cm	5 x 10^{13} ohm-cm	ASTM D257
Dielectric Constant @ 1MHz	3.20	3.20	3.20	3.20	3.20	ASTM D150

STANDARD THICKNESSES

0.020" (0.51mm)	0.030" (0.76mm)	0.040" (1.02mm)	0.050" (1.27mm)
0.060" (1.52mm)	0.070" (1.78mm)	0.080" (2.03mm)	0.090" (2.29mm)
0.100" (2.54mm)	0.110" (2.79mm)	0.120" (3.05mm)	0.130" (3.30mm)
0.140" (3.56mm)	0.150" (3.81mm)	0.160" (4.06mm)	0.170" (4.32mm)
0.180" (4.57mm)	0.190" (4.83mm)	0.200" (5.08mm)	

Consult the factory for alternate thicknesses.

BULK

Tputty™ 502 is available in bulk form in the following sizes:
100 cc Jar 500 cc Jar 1000 cc Jar

Consult the factory for alternate bulk sizes.

STANDARD SHEET SIZES

9" x 9" (229mm x 229mm) and 18" x 18" (457mm x 457mm).
9" x 9" only over 0.100" thickness

Tputty™ 502 is available in individual die cut shapes. Pressure sensitive adhesive is not applicable for Tputty™ products.

REINFORCEMENT

Tputty™ 502 sheets are reinforced on both sides with fiberglass.

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

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Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001
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Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

http://moschip.ru/get-element

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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