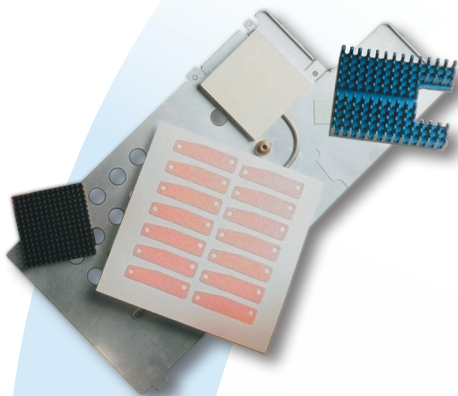




IT ALL STARTS WITH AN IDEA...

The idea to make devices faster, sleeker, more compact and powerful, yet the challenge is to do so without over-heating.

Laird Technologies' thermally conductive gap fillers are compliant, future-generation cooling materials. We offer the softest, highest thermally conductive gap fillers available (in thicknesses from 0.2mm to 5.08mm).

These gap filler products afford designers and engineers the most flexibility in dimensional tolerances. Extreme compliancy reduces stress on components, while higher thermal conductivity provides the required thermal performance for next-generation designs.

Thermal performance and softness is what Laird Technologies does best. Call us today to discuss your application and order free samples.

Laird Technologies' gap fillers - experience the cooler side of soft.

FEATURES AND BENEFITS

- Compliancy rates up to 50% deflection at 50 psi
- Thermal conductivity range from 1.1 – 6.0 W/mK
- Thicknesses from 0.2mm to 5.08mm

APPLICATIONS

- Notebook computers
- Handheld microprocessor devices
- Telecommunication hardware
- Semiconductor test equipment
- Servers and desktop computers
- Memory modules
- Mass storage devices
- Power conversion equipment
- Flat panel displays
- Audio & video components
- GPS navigation equipment
- Automotive engine control
- LED lighting
- Household appliances
- Lighting ballasts

global solutions: local support™

Americas: +1.800.843.4556

Europe: +49.8031.2460.0

Asia: +86.755.2714.1166

CLV-customerservice@lairdtech.com

www.lairdtech.com/thermal

	TFLEX™ 200V0	TFLEX™ 300	TFLEX™ 500	TFLEX™ HR600 PRELIMINARY	TFLEX™ 600	TFLEX™ 700 PRELIMINARY	TPUTTY™ 502	TPUTTY™ 504	TPLI™ 200	TEST METHOD
Construction & Composition	Ceramic filled silicone sheet	Ceramic filled silicone sheet	Ceramic filled silicone sheet	Ceramic filled silicone sheet	Boron nitride filled silicone sheet	Ceramic filled silicone sheet	Reinforced boron nitride filled silicone sheet	Ceramic filled dispensable silicone gel	Boron nitride filled silicone sheet	
Color	Light Gray	Light Green	Blue	Grey	Blue-Violet	Dark Grey	White	Light Gray	Multiple Colors	Visual
Thickness Range	0.008" (0.20mm)- 0.200" (5.08mm)	0.020" (0.50mm)- 0.200" (5.08mm)	0.020" (0.5mm)- 0.200" (5.08mm)	0.020" (0.5mm)- 0.200" (5.08mm)	0.020" (0.5mm)- 0.200" (5.08mm)	0.020" (0.5mm)- 0.200" (5.08mm)	0.020" (0.5mm)- 0.200" (5.08mm)	N/A	0.010" (0.25mm)- 0.200" (5.08mm)	
Thickness Tolerance	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%	N/A	+/- 10%	
Density	1.73 g/cc	1.75 g/cc	3.00 g/cc	2.52 g/cc	1.34 g/cc	1.78 g/cc	1.38 g/cc	2.78 g/cc	1.44 g/cc	Helium Pycnometer
Hardness	45 Shore 00	20 Shore 00	40 Shore 00	35 Shore 00	25 Shore 00	50 Shore 00	5 Shore 00	N/A	70 Shore 00	ASTM D2240
Tensile Strength	48 psi	15 psi	66 psi	Pending	15 psi	Pending	N/A	N/A	35 psi	ASTM D412
% Elongation	63	50	57	Pending	75	Pending	N/A	N/A	5	ASTM D412
Outgassing TML (Post Cured)	0.34%	0.56%	0.29% (not post cured)	0.19%	0.13%	Pending	0.11%	0.34%	0.07%	ASTM E595
Outgassing CVCM (Post Cured)	0.10%	0.10%	0.04% (not post cured)	0.07%	0.05%	Pending	0.06%	0.09%	0.02%	ASTM E595
UL Flammability Rating	94 V0	94 V0	94 V0	94 V0	94 V0	94 V0	94 V0	94 V0	94 HB	E180840
Temperature Range	-45°C to 160°C	-40°C to 160°C	-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	-45°C to 200°C	-45°C to 200°C	
Thermal Conductivity	1.1 W/mK	1.2 W/mK	2.7 W/mK	3.0 W/mK	3.0 W/mK	5.0 W/mK	3.0 W/mK	1.8 W/mK	6.0 W/mK	Hot disk
Thermal Resistance @ 40 mils, 20 psi @ 1mm, 138KPa	1.57 °C-in2/W 10.13 °C-cm2/W	1.15 °C-in2/W 7.42 °C-cm2/W	0.50 °C-in2/W 3.23 °C-cm2/W	0.35 °C-in2/W 2.26 °C-cm2/W	0.62 °C-in2/W 4.00 °C-cm2/W	0.21 °C-in2/W 1.22 °C-cm2/W	0.49 °C-in2/W 3.16 °C-cm2/W	N/A N/A	0.37 °C-in2/W 2.45 °C-cm2/W	ASTM D5470 (modified)
Percent Deflection @ 10 psi	5%	21%	10%	10%	20%	15%	25%	N/A	4%	ASTM D575 (modified)
Percent Deflection @ 50 psi	25%	48%	30%	42%	40%	32%	50%	N/A	6%	ASTM D575 (modified)
Percent Deflection @ 100 psi	40%	61%	45%	58%	60%	50%	75%	N/A	10%	ASTM D575 (modified)
Thermal Expansion	229 ppm/°C	754 ppm/°C	37.4 ppm/°C	217 ppm/°C	430 ppm/°C	340 ppm/°C	92 ppm/°C	N/A	51 ppm/°C	IPC-TM-650 2.4.24
Breakdown Voltage	>250 VAC/mil	>250 VAC/mil	>200 VAC/mil	Pending	>200 VAC/mil	>200 VAC/mil	>200 VAC/mil	>500 VAC/mil	>150 VAC/mil	ASTM D149
Volume Resistivity	4 x 10 ¹³ ohm-cm	6 x 10 ¹² ohm-cm	1x 10 ¹³ ohm-cm	9 x 10 ¹³ ohm-cm	2 x 10 ¹³ ohm-cm	1x 10 ¹³ ohm-cm	5 x 10 ¹³ ohm-cm	>10 ¹⁴ ohm-cm	5 x 10 ¹³ ohm-cm	ASTM D257
Dielectric Constant @ 1MHz	5.5	5.5	13.6	17.6	3.3	5	3.2	N/A	3.2	ASTM D150

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

THR-DS-GAPFILLER 0710

Any information furnished by Laird Technologies, Inc. and its agents is believed to be accurate and reliable. All specifications are subject to change without notice. Responsibility for the use and application of Laird Technologies materials rests with the end user, since Laird Technologies and its agents cannot be aware of all potential uses. Laird Technologies makes no warranties as to the fitness, merchantability or suitability of any Laird Technologies materials or products for any specific or general uses. Laird Technologies shall not be liable for incidental or consequential damages of any kind. All Laird Technologies products are sold pursuant to the Laird Technologies Terms and Conditions of sale in effect from time to time, a copy of which will be furnished upon request. © Copyright 2010 Laird Technologies, Inc. All Rights Reserved. Laird, Laird Technologies, the Laird Technologies Logo, and other marks are trademarks or registered trademarks of Laird Technologies, Inc. or an affiliate company thereof. Other product or service names may be the property of third parties. Nothing herein provides a license under any Laird Technologies or any third party intellectual property rights. A15561-00 Rev A, 2/05/07



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.