THERM-A-GAP PAD 80LO

MATRIX

8.0 W/m-K High Performance, Low Oil Bleed, Low Relaxation Force Thermal Gap Filler Pad

Parker Chomerics THERM-A-GAP™ PAD 80LO is a high performance, low oil bleed, thermal gap filler pad with a typical thermal conductivity of 8.0 W/m-K. PAD 80LO was developed to be a high reliability and long-term solution for mission critical and high performance electronics in nearly every market segment including advanced computing, defense electronics, telecommunications infrastructure, and automotive modules.

"LO" in the product name stands for "Low Oil", indicating the very low silicone oil bleed and migration properties of this gap pad. PAD 80LO is meant to be used where the aesthetic or manufacturing issues of silicone oils can be a concern.

PAD 80LO has a hardness of 60 Shore 00 and exhibits excellent stress relaxation over time, with a nearly 90% reduction in compression force after just one hour. It is designed to impart minimal stress on components such as integrated circuits and provide physical protection such as vibration dampening while maintaining effective thermal contact where conformability in gaps or rough surface texture is a concern.

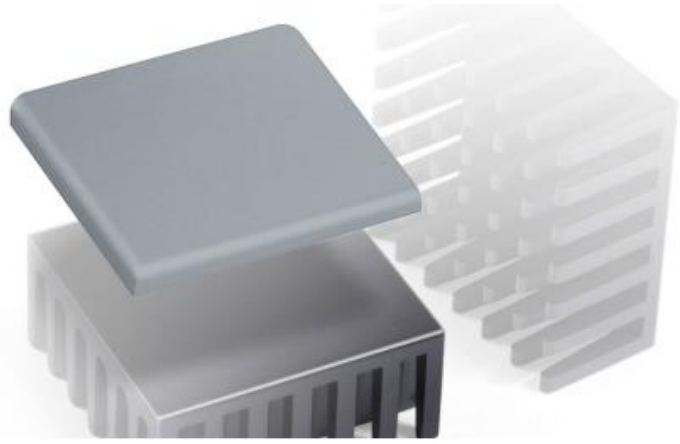
PAD 80LO can be provided in sheets or die cut to custom part sizes and is available in standard thicknesses as low as 0.040" to 0.200" (1.0 mm to 5 mm).

PRODUCT FEATURES:

- High thermal performance: 8.0 W/m-K conductivity
- Very low oil bleed and migration
- Very low compression force post-relaxation
- High tack surface reduces contact resistance
- Electrically isolating
- UL 94 V-0 flammability rating

TYPICAL APPLICATIONS:

- High performance computing, GPUs, CPUs and memory modules
- 5G and Telecomm equipment • Automotive sensors and devices
- Battery and energy storage modules
- Defense electronics



Authorized Canadian Partner

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MATRIX

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Matrix specializes in precision cutting and converting of engineered materials to meet the exact specifications required by manufacturers. Our state-of-the-art equipment and expertise ensure precise customization, providing manufacturers with streamlined solutions to enhance their product quality and performance.

THERM-A-GAP PAD80LO PRODUCT INFORMATION

	Typical Properties†	PAD 80LO	Test Method
Physical	Color	Grey	Visual
	Carrier Options: No letter suffix = None (unsupported)	NA	--
	Standard Thicknesses*, in. (mm) (See part number table for thickness limits by type of carrier.)	0.040-0.200 (1.00-5.00)	ASTM D374
	Specific Gravity	3.4	ASTM D792
	Hardness, Shore 00	60	ASTM D2240
	Percent Deflection at various pressure (0.120 in thick unsupported sample) @ 5 psi (34 kPa) @ 10 psi (69 kPa) @ 25 psi (172 kPa) @ 50 psi (345 kPa)	 20% 36% 56%** 66%**	ASTM C165 MOD
Thermal	Operating Temperature Range, °F (°C)	-67 to 392 (-55 to 200)	Chomerics
	Thermal Conductivity, W/m-K	8.0	ASTM D5470
	Heat Capacity, J/g-K	1	ASTM E1269
Electrical	Dielectric Strength, V_{AC}/mil (kV_{AC}/mm)	200 (8)	ASTM D149
	Volume Resistivity, ohm-cm	10^{15}	ASTM D257
	Dielectric Constant @ 1,000 kHz and at 0.050" (1.2 mm) thick	9.1	ASTM D150
	Dissipation Factor @ 1,000 kHz and at 0.050" (1.2 mm) thick	0.001	CHO-TM-TP13
Regulatory	Flammability Rating (See UL File E482354 for Details)	V-0	UL 94
	RoHS Compliant	Yes	Chomerics Certification
	Outgassing, % TML (% CVCM)	0.0480 (0.0034)	ASTM E595
	Shelf Life, months from date of shipment	24	Chomerics
	Storage Conditions, °F (°C) @ 50% Relative Humidity	50 to 90 (10 to 32)	Chomerics

† Typical properties: these are not to be construed as specifications.
* Thickness tolerance, inches (mm) is ±10% of the nominal part thickness for parts 0.100" (2.5mm) thick or less; those parts greater than 0.100" (2.5mm) thick are held to ±0.010" (±0.25mm)
** The typical deflection range of THERM-A-GAP PAD 80LO is approximately 5 to 40%. Evaluation of the part in your specific application is recommended. Samples are available upon request.

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