

THERM-A-GAP® PAD 120LOE

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

Parker Chomerics THERM-A-GAP® PAD 120LOE is a high performance, low oil bleed, thermal gap filler pad with 12.0 W/m-K thermal conductivity. PAD 120LOE 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.

“LOE” in the product name stands for “Low Oil” & “Enhanced”, indicating the very low silicone oil bleed and migration properties of this gap pad. PAD 120LOE is manufactured to minimize oil bleed and was formulated based on several different test methods during product development. It is meant to be used where the aesthetic or manufacturing issues of silicone oils can be a concern.

PAD 120LOE has a hardness of Shore 00 45 and exhibits excellent stress relaxation over time. 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.

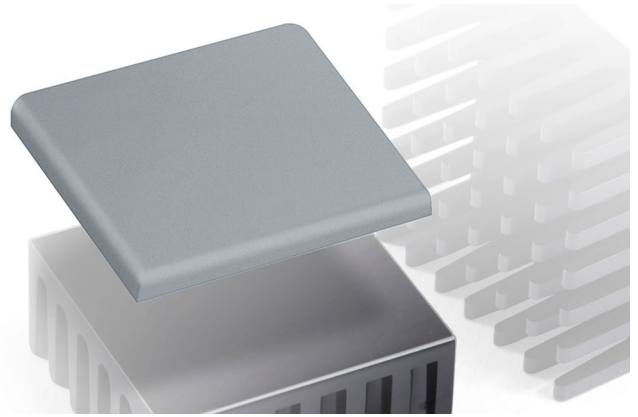
PAD 120LOE can be provided in sheets or die cut to custom part sizes and is available in standard thicknesses from 1 to 5 millimeters.

Product Features

- High thermal performance: 12.0 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

- GPUs and CPUs
- Network Device
- Memory modules
- 5G and Telecomm equipment
- Automotive sensors and devices
- Battery and energy storage modules
- Defense electronics



THERM-A-GAP PAD 120LOE PRODUCT INFORMATION

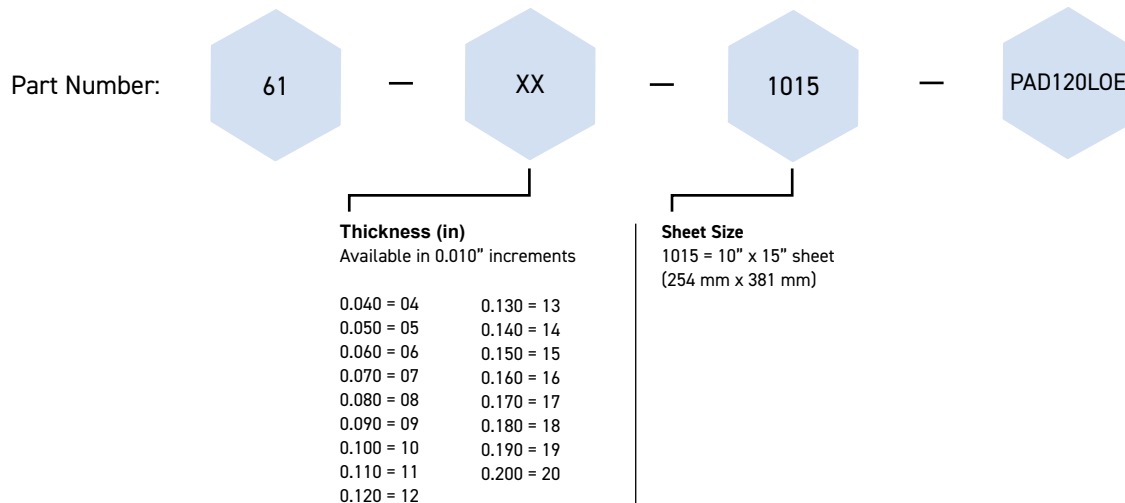
Typical Properties†		PAD 120LOE	Test Method
Physical	Color	Grey	Visual
	Carrier Options: No letter suffix = None (unsupported), No pressure sensitive adhesive (PSA)	None	--
	Standard Thicknesses*, in. (mm) (See part number table for thickness limits by type of carrier.)	0.040-0.200 (1.00-5.00)	ASTM D374
	Specific Gravity	3.2	ASTM D792
	Hardness, Shore 00	45	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 33 54 66	ASTM C165 MOD
Thermal	Operating Temperature Range, °F (°C)	-58 to 392 (-50 to 200)	Chomerics
	Bulk thermal Conductivity, W/m-K @ 20psi (2.5mm)	12.0	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 ¹⁴	ASTM D257
	Dielectric Constant @ 1,000 kHz and at 0.05"(1.2mm) thick	6.0	ASTM D150
	Dissipation Factor @ 1,000 kHz and at 0.05"(1.2mm) thick	0.0001	CHO-TM-TP13
Regulatory	Flammability Rating	V-0	Chomerics
	RoHS Compliant	Yes	Chomerics Certification
	Outgassing, % TML (% CVCm)	0.18 (0.023)	ASTM E595
	Shelf Life, months from date of shipment	18	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)

THERM-A-GAP PAD 120LOE ORDERING INFORMATION

10" x 15" Sheets - THERM-A-GAP® PAD 120LOE



Ordering Information: Custom Configurations

Sheet thickness tolerance is $\pm 10\%$ of the nominal thickness OR $\pm 0.010"$, whichever is smaller

Please contact Parker Chomerics for a pre-assigned part number, for custom widths, lengths and part sizes; etc

Available options include:

* Custom die-cut parts on sheets, or as individual parts

Handling Information

These products are defined by Parker Chomerics as "articles" according to the following generally recognized regulatory definition for articles:

An article is a manufactured item "formed to a specific shape or design during manufacturing," which has "end use functions" dependent upon its size and shape during end use and which has generally "no change of chemical composition during its end use."

In addition:

- There is no known or anticipated exposure to hazardous materials/substances during routine and anticipated use of the product.
- The product's shape, surface and design is more relevant than its chemical composition.

These materials are not deemed by Parker Chomerics to require an MSDS. For further questions, please contact Parker Chomerics at 781-935-4850.



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Sealing Devices Inc.