

THERM-A-GAP® PAD 80

8.3 W/m-K Thermally Conductive High Performance Gap Filler Pad

Parker Chomerics THERM-A-GAP® PAD 80 is a high performance, thermally conductive gap filler pad with a typical thermal conductivity of 8.3 W/m-K. It provides superior heat transfer across a range of thicknesses while maintaining low compression forces and conformability between mating surfaces.

THERM-A-GAP PAD 80 is designed to serve as an effective thermal interface between heat sinks and heat generating components on electronic devices where uneven surfaces, air gaps, and rough surfaces may exist.

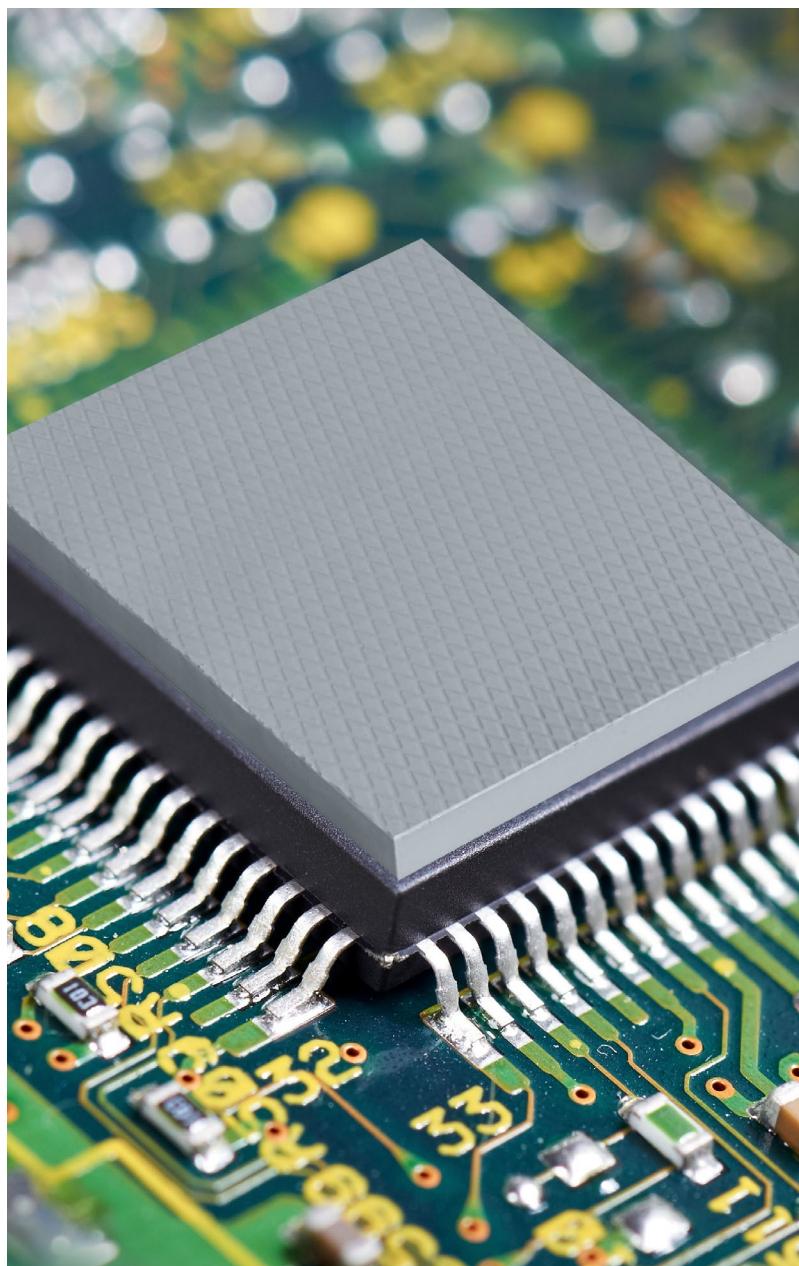
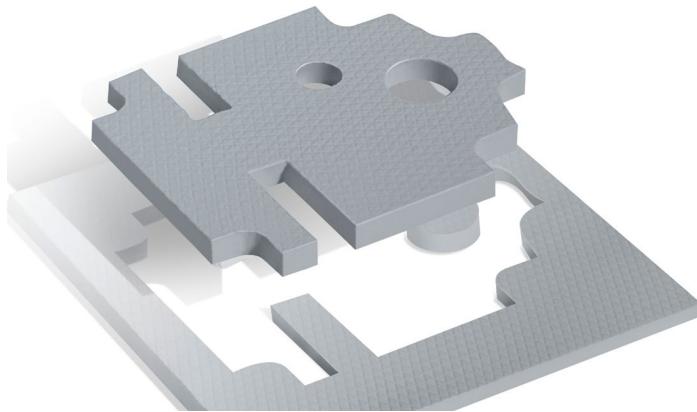
PAD 80 is available in standard thicknesses as low as 0.030" to 0.200" (0.76mm to 5.1mm) and can be provided in sheets or cut to custom part sizes. It is available on several material carriers including an aluminum foil carrier that is supplied with pressure sensitive adhesive (PSA) for added adhesive strength during the assembly process.

Product Features

- 8.3 W/m-K thermal conductivity
- Very low compression force
- Electrically isolating
- UL 94 V-0 flammability rating
- "A" version offers high strength acrylic PSA for permanent attachment
- Passes NASA outgassing requirements

Typical Applications

- 5G and Telecom equipment
- Smart home devices
- Automotive electronics
- LEDs
- Power supplies
- Computing modules and servers
- Memory and data storage units



THERM-A-GAP PAD 80 PRODUCT INFORMATION

Typical Properties†		PAD 80	Test Method
Physical	Color	Light Grey	Visual
	Carrier Options: A = Aluminum foil carrier with pressure sensitive adhesive (PSA) G = Woven glass carrier - offset to one side. No pressure sensitive adhesive (PSA) option PN = PEN Film. No pressure sensitive adhesive (PSA) option No letter suffix = None (unsupported), No pressure sensitive adhesive (PSA)	PAD80A PAD80G PAD80PN PAD80	--
	Standard Thicknesses*, in. (mm) (See part number table for thickness limits by type of carrier.)	0.020 - 0.200 (0.51 - 5.10)	ASTM D374
	Specific Gravity	3.4	ASTM D792
	Hardness, Shore 00	35	ASTM D2240
	Percent Deflection @ Various Pressures** (0.120 in thick unsupported sample) @ 5 psi (34 kPa) @ 10 psi (69 kPa) @ 25 psi (172 kPa) @ 50 psi (345 kPa)	% Deflected 13% 25% 50%** 64%**	ASTM C165 MOD (0.120 in with no Carrier 0.50 in dia sample 0.025 in/min rate)
	Operating Temperature Range, °F (°C)	-67 to 392 (-55 to 200)	Chomerics
	Thermal Conductivity, W/m-K	8.3	ASTM D5470
	Thermal Impedance, °C-in ² / W (°C-cm ² /W) @ 10 psi, 0.04 in. (1mm) thick, unsupported	0.15 (0.97)	ASTM D5470
	Heat Capacity, J/g-K	1	ASTM E1269
Thermal	Coefficient of Thermal Expansion, ppm/K	150	ASTM E831
	Dielectric Strength, V _{AC} /mil (kV _{AC} /mm)	125 (5.0)	ASTM D149
	Volume Resistivity, ohm-cm	10 ¹⁴	ASTM D257
	Dielectric Constant @ 1,000 kHz and at 0.08"(2.0mm) thick	6.0	ASTM D150
Electrical	Dissipation Factor @ 1,000 kHz and at 0.08"(2.0mm) thick	0.002	CHO-TM-TP13
	Flammability Rating (See UL File E482354 for Details)	V-0	UL 94
	RoHS Compliant	Yes	Chomerics Certification
	Outgassing, % TML (% CVCM)	0.11 (0.09)	ASTM E595
	Shelf Life, months from date of shipment (PAD80A)	36 (18)	Chomerics
Regulatory	Storage Conditions, °F (°C) @ 50% Relative Humidity	50 to 90 (10 to 32)	Chomerics

† Typical properties: these are not to be construed as specifications.

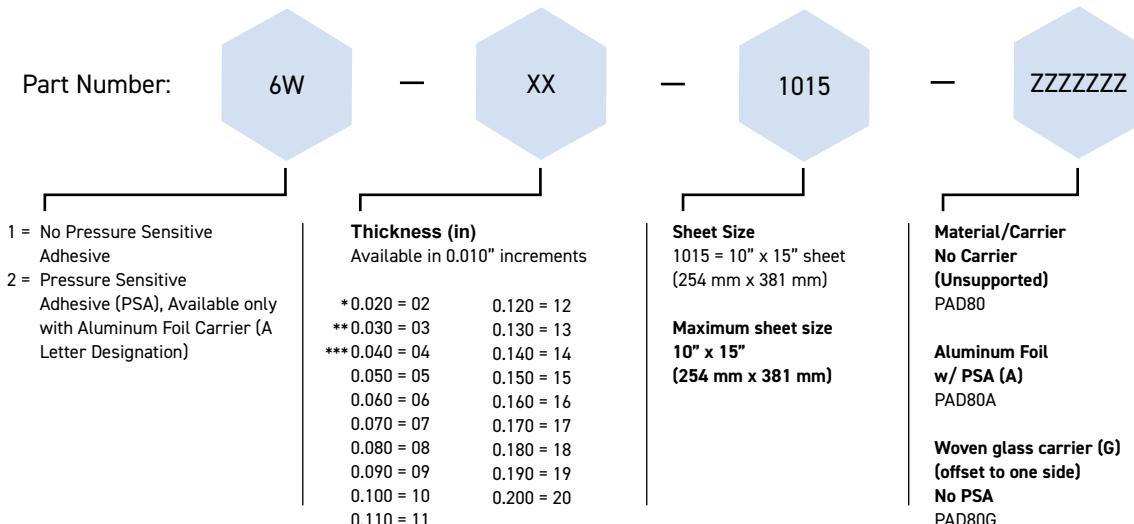
* Thickness tolerance, inches(mm) is ±10% of the nominal part thickness for parts 0.100" (2.5mm) thick or less; those parts greater than 0.100" (2.5mm) thick are held to ±0.010" (0.25mm).

** The typical deflection range of Therm-A-Gap 80 is approximately 5% to 40% (or more depending on the carrier option and pad thickness. Evaluation of the part in your specific application is recommended.) Samples are available upon request.

THERM-A-GAP PAD 80 ORDERING INFORMATION

10" x 15" Sheets - THERM-A-GAP™ PAD 80

"A", "G", or "PN" carriers and unsupported



* Minimum thickness for PAD80G

** Minimum thickness for PAD80A and PAD80PN

*** Minimum thickness for PAD80

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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