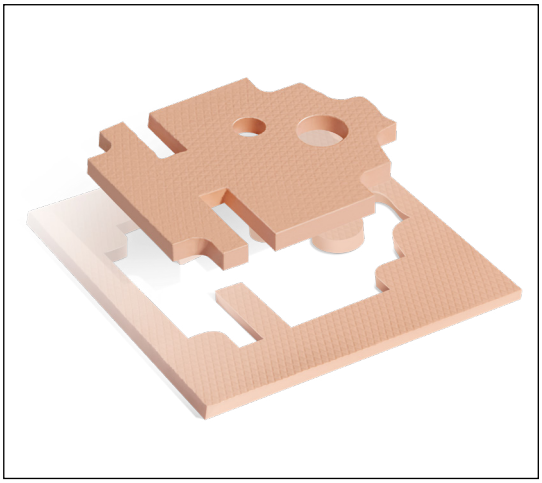
THERM-A-GAP™ 974, G974 and 976

High Thermal Conductivity Gap Filler Pads



Description

THERM-A-GAP™ 97X gap fillers offer the highest thermal conductivity for low to moderate clamping force applications.

Features/Benefits

- High thermal conductivity
- 974 and G974 supplied with PSA for ease of use
- 976 is softer compared to similar high conductivity materials

Typical Applications

- Telecommunications equipment
- Consumer electronics
- Automotive electronics (ECUs)
- LEDs, lighting
- Power conversion
- Power semiconductors

THERM-A-GAP™ 974, G974 and 976 Thermally Conductive Gap Filler Pads					
Typical Properties		974	G974	976	Test Method
Physical	Color	Blue	Blue	Gold	Visual
	Carrier	PSA	Fiberglass with PSA	None	--
	Standard Thicknesses*, in (mm)	0.020 - 0.060 (0.51 - 1.52)	0.010 - 0.100 (0.25 - 2.54)	0.040 - 0.200 (1.00 - 5.08)	ASTM D374
	Specific Gravity	1.40	1.40	1.30	ASTM D792
	Hardness, Shore A	40	40	10	ASTM D2240
	Penetrometer, mm	25	25	60	Chomerics
	Percent Deflection @ Various Pressures (0.060 in thick sample) @ 5 psi (34 kPa) @ 10 psi (69 kPa) @ 25 psi (172 kPa) @ 50 psi (345 kPa)	% Deflected 7 11 12 13	% Deflected 7 11 12 13	% Deflected 6 10 11 45	ASTM C165 MOD (0.060" thick, 0.50 in diameter, 0.025 in/min rate)
Thermal	Thermal Conductivity, W/m-K	6.0	5.0	6.5	ASTM D5470
	Thermal Impedance, °C-in²/W (°C-cm²/W) 50 psi (@ 345 kPa), 0.040 in (1 mm)	0.45 (2.9)	0.51 (3.3)	0.30 (1.9)	ASTM D5470
	Heat Capacity, J/g-K	0.9	0.9	0.9	ASTM E1269
	Coefficient of Thermal Expansion, ppm/°C	100	100	100	ASTM E831
	Operating Temperature Range, °F (°C)	-67 to 392 (-55 to 200)	-67 to 392 (-55 to 200)	-67 to 392 (-55 to 200)	--
Electrical	Dielectric Strength, Vac/mil (KVac/mm)	200 (5.1)	200 (5.1)	200 (5.1)	ASTM D149
	Volume Resistivity, ohm-cm	10^{14}	10^{14}	10^{14}	ASTM D257
	Dielectric Constant @1,000 kHz	3.2	3.2	3.2	ASTM D150
	Dissipation Factor @ 1,000 kHz	< 0.001	< 0.001	< 0.001	Chomerics Test
Regulatory	Flammability Rating (See UL File E140244 for Details)	Not Tested	V-0	V-0	UL 94
	Outgassing, % TML (% CVCM)	0.59 (0.18)	0.59 (0.18)	0.64 (0.21)	ASTM E595
	RoHS Compliant	Yes	Yes	Yes	Chomerics Certification
	Shelf Life, months from date of shipment	12	12	24	Chomerics

*Thickness tolerance, in. (mm) ±10% nominal thickness @ 2.5mm (100 mil) or less;
± 0.25mm (10mil) @ nominal thickness greater than 2.5mm (100 mil). Custom thicknesses may be available upon request.

Parker Chomerics

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Product Attributes

974

- Excellent thermal performance
- Acrylic PSA for improved application

G974

- Excellent thermal performance
- Acrylic PSA for improved application
- Fiberglass reinforced for improved tear strength and improved rework capabilities

976

- Superior thermal performance
- Low compression force under pressure
- Minimal stress on components

Material Handling

These products are defined by 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 Chomerics to require an MSDS. For further questions, please contact Chomerics at 781-935-4850.

Ordering Information

THERM-A-GAP products are available in the following formats. Contact Chomerics for custom widths, part sizes, etc.

- Full Sheets, 9"x12" to 20"x25"
- Die-cut parts on sheets
- Custom die-cut parts on sheets, or as individual parts

Part Number: 6W – XX – YYYY – ZZZZ

W	XX	YYYY	ZZZZ
1 = Sheet - No PSA (976 only) 2 = Sheet with PSA 1 side (974/G974 only)	Material thickness* is in ten mil increments (e.g. 10 = 0.100" or 2.54 mm) (e.g. 02 = 0.020" or 0.50 mm)	0912 = (9" X 12" Sheet / 22.9 cm X 30.5 cm). 2025 = (20" X 25" Sheet / 50.8 cm X 63.5 cm).	ZZZZ = 974, G974, or 976
9 = Custom configuration	11 = Custom, no PSA (976 only) 12 = Custom, with PSA 1 side (974/G974 only)	YYYYY = Custom configuration (Please contact Chomerics for a pre-assigned part number if necessary)	

* See typical properties table for thicknesses.

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