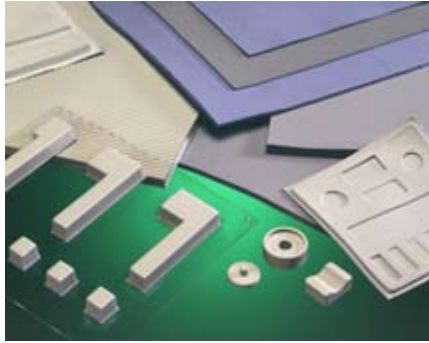


# THERM-A-GAP™ 974, G974 and 976

## High Performance Thermally Conductive Pads



### DESCRIPTION

THERM-A-GAP™ - 97X products are high performance, thermally conductive pads designed to solve

some of most difficult thermal challenges. These products are electrically non-conductive boron nitride filled silicone elastomers. 97X materials conform to surface irregularities under moderate application pressures and range in thickness from 0.25 mm (0.010 in) to 5.10 mm (0.200 in).

G974 has an added fiberglass carrier for improved mechanical tear resistance and also provides a pressure sensitive adhesive (PSA) for improved application

performance. 974 is available only with PSA.

976 material is the highest thermally conductive and softest material in this family of products. Typical high conductivity gap fillers are extremely hard. Compared with materials of similar thermal conductivity, 976 is much softer.

### FEATURES/BENEFITS

- High thermal performance
- Conformable to irregular surfaces

THERM-A-GAP™ 974, G974 and 976 Thermally Conductive Pads					
Typical Properties		974	G974	976	Test Method
Physical	Color	Blue	Blue	Gold	Visual
	Carrier	PSA	Fiberglass with PSA	None	--
	Standard Thicknesses*, mm (in)	0.5 - 1.50 (0.020 - 0.060)	0.25 - 1.50 (0.010 - 0.060)	1.00 - 5.00 (0.040 - 0.200)	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	% Deflected	% Deflected	% Deflected	ASTM C165 MOD (0.070" thick, 0.50 in diameter, 0.025 in/min rate)
	@ 34 kPa (5 psi)	7	7	6	
	@ 69 kPa (10 psi)	11	11	10	
	@ 172 kPa (25 psi)	12	12	11	
	@ 345 kPa (50 psi)	13	13	45	
Thermal	Thermal Impedance, °C-cm <sup>2</sup> /W (°C-in <sup>2</sup> /W) @ 345 kPa (50 psi), 1 mm	2.90 (0.45)	3.29 (0.51)	1.93 (0.30)	ASTM D5470
	Thermal Conductivity, W/m-K @ 345 kPa (50 psi), 1 mm	5	4	6	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, °C (°F)	-65 to 150°C (-85 to 302)	-65 to 150°C (-85 to 302)	-65 to 150°C (-85 to 302)	--
Electrical	Dielectric Strength, kVac/mm (Vac / mil)	3.8 (150)	3.8 (150)	5.1 (200)	ASTM D149
	Volume Resistivity, ohm-cm	10 <sup>14</sup>	10 <sup>14</sup>	10 <sup>14</sup>	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
	RoHS Compliant	Yes	Yes	Yes	Chomerics Certification
	Shelf Life, months from date of shipment	12	12	24	Chomerics

\*Thickness tolerance, mm(in.) ±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.

# THERM-A-GAP™ 974, G974 and 976 Thermally Conductive Pads

## TYPICAL APPLICATIONS

- Power conversion equipment
- Power supplies and UPS
- Power semiconductors
- Automotive electronics
- Motor and engine controllers
- Televisions and consumer electronics
- Voltage regulators

## PRODUCT ATTRIBUTES

### 974

- Excellent thermal performance
- PSA for improved application

### G974

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

### 976

- Superior thermal performance
- Solves the toughest heat transfer problems
- Low compression force under pressure
- Minimal stress on components

## MATERIAL HANDLING

Commercial THERM-A-GAP™ pads 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 article.

These materials are not deemed by Chomerics to require an MSDS. For further questions, please contact Chomerics at 781-939-4850.

## Ordering Information

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

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

Part Number:



1 = Sheet - No PSA (976 only)  
 2 = Sheet with PSA 1 side (974/G974 only)  
 9 = Custom configuration



Material thickness\* in mils (e.g. 10 = 0.010” or 0.254 mm)  
 11 = Custom, no PSA  
 12 = Custom, with PSA



YYYY = 0808 (8” X 8” Sheet / 20.3 cm X 20.3 cm). Custom YYYY sizes available.  
 YYYY = Custom configuration (Please contact Chomerics for a pre-assigned part number if necessary)



ZZZZ = 974, G974, or 976

\* See typical properties table for thicknesses.