MATRIX

Thermally Conductive Low Compression Force Thermal Putty

Parker Chomerics THERM-A-GAP PAD 70TP is a high performance, highly conformable thermally conductive gap filler pad with a typical thermal conductivity of 7.0 W/m-K. It provides superior thermal performance and long- term stability over conventional thermal pads with very low compression force. THERM-A-GAP PAD 70TP is designed to provide effective heat transfer between electronic components and their associated cooling features such as heat sinks. The physical properties of this gap pad allow it to exhibit very high conformability and minimize the compressive load on underlying electronics. “TP” in the product name stands for “Thermal Putty” indicating that, unlike other gap pads, this material is meant for static, one-time assembly because it will permanently conform to displace air gaps caused by uneven surfaces or surface textures.

PRODUCT FEATURES:

- 7.0W/m-K thermal conductivity
- Highly comfortable, soft
- Low deflection force
- Electrically isolating
- One-time assembly

IDEAL APPLICATIONS:

- Telecom Equipment
- PC board to chassis
- Thermally enhanced BGAs
- Memory packages & modules
- GPU & CPU
- Industrial Devices

Authorized Canadian Partner

Parker Chomerics

AVAILABLE SIZES:

- 0.020” to 0.200”
- Matrix can precision cut to custom part sizes

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Head Office: 905-477-4442
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THERMA-A-GAP PAD 70 TP

MATRIX

MATRIX PRECISION CONVERTING

Your Application. Our Expertise.

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.

	Typical Properties†	PAD 70TP	Test Method
Physical	Color	Dark Grey	Visual
	Carrier Options: G = Woven glass carrier - offset to one side. No pressure sensitive adhesive (PSA) option A = Aluminum foil carrier with pressure sensitive adhesive (PSA) F = Woven glass carrier - centered on thickness. No pressure sensitive adhesive (PSA) option No letter suffix = None (unsupported), No pressure sensitive adhesive (PSA)	PAD70TPG PAD70TPA PAD70TPF PAD70TP	--
	Standard Thicknesses*, in. (mm) (See part number table for thickness limits by type of carrier.)	0.030 - 0.200 (0.76 - 5.08)	ASTM D374
	Specific Gravity	3.3	ASTM D792
	Hardness, Shore 00	15	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 18% 42% 63% ** 73% **	ASTM C165 MOD (0.120 in with no Carrier 0.50 in dia. sample 0.025 in/min rate)
Thermal	Operating Temperature Range, °F (°C)	-67 to 392 (-55 to 200)	Chomerics
	Thermal Conductivity, W/m-K	7.0	ASTM D5470
	Thermal Impedance, °C-in²/ W (°C-cm²/W) @ 10 psi, 0.04 in. (1mm) thick G carrier	0.27 (1.7)	ASTM D5470
	Heat Capacity, J/g-K	0.72	ASTM E1269
	Coefficient of Thermal Expansion, ppm/K	150	ASTM E831
Electrical	Dielectric Strength, V_{AC}/mil (kV_{AC}/mm)	200 (7.9)	ASTM D149
	Volume Resistivity, ohm-cm	10^{13}	ASTM D257
	Dielectric Constant @ 1,000 kHz and at 0.11" (2.8mm) thick	5.6	ASTM D150
	Dissipation Factor @ 1,000 kHz and at 0.11" (2.8mm) 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)	0.10 (0.03)	ASTM E595
	Shelf Life, months from date of shipment (PAD70TPA)	24 (18)	Chomerics
	Storage Conditions, °F (°C) @ 50% Relative Humidity	50 to 90 (10 to 32)	Chomerics

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