THERM-A-GAP™ PAD 30

3.2 W/m-K Thermally Conductive Very Low Compression Force Gap Filler Pad

Parker Chomerics THERM-A-GAPTM PAD 30 is a thermally conductive, electrically isolating gap filler pad with a thermal conductivity of 3.2 W/m-K. Designed to provide effective heat transfer between electronic devices, heat sinks, or other cooling features, THERM-A-GAP PAD 30 offers the ideal combination of heat transfer, low outgassing, and low compressing forces. With a Shore 00 hardness measurement of 30, it is designed to maintain conformability in gaps that contain uneven mating surfaces, air gaps, or where rough surface texture is a concern.

THERM-A-GAP PAD 30 was developed to be a universal solution across applications and industries requiring a moderate level of thermal performance in electronic device designs. It is a cost-effective solution and optimized for flexibility of design with several material carrier options available and ease of customization to unique shapes and sizes.

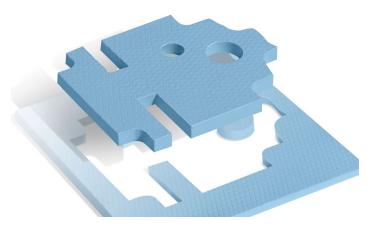
Product Features

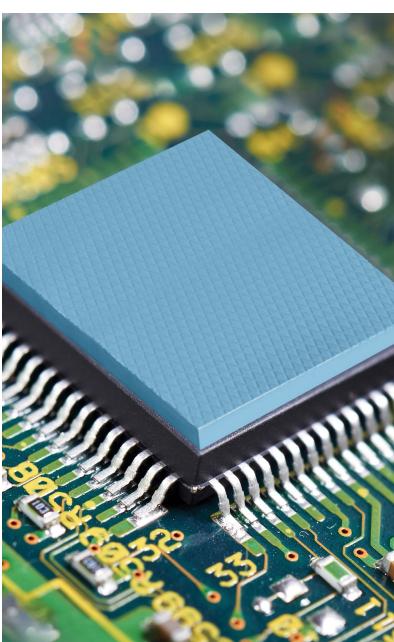
- 3.2 W/m-K thermal conductivity
- Very low compression force
- Very good thermal conductivity
- · High tack surface reduces contact resistance
- "A" version offers high strength acrylic PSA for permanent attachment
- UL recognized V-0 flammability
- RoHS compliant
- Vibration dampening

Typical Applications

- Telecommunications equipment
- Consumer electronics
- Automotive electronics (ECUs)
- LEDs and lighting
- Power conversion
- Desktop computers, laptops, servers
- Handheld devices
- Memory modules







THERM-A-GAP PAD 30 PRODUCT INFORMATION

| | Typical Properties [†] | PAD 30 | Test Method |
|------------|--|---|--|
| | Color | Blue | Visual |
| Physical | Carrier Options: G = Woven glass - no pressure sensitive adhesive (PSA) A = Aluminum foil - with PSA PN = PEN film KT = Thermally enhanced polyimide No letter suffix = None (unsupported) | PAD30G PAD30A PAD30PN PAD30KT PAD30 | |
| | Standard Thicknesses*, in. (mm) | 0.020 - 0.200 (0.51 - 5.08) | ASTM D374 |
| | Specific Gravity | 2.9 | ASTM D792 |
| | Hardness, Shore 00 | 30 | ASTM D2240 |
| | Percent Deflection @ Various Pressures** (0.120 in thick sample) @ 5 psi (34 kPa) @ 10 psi (69 kPa) @ 25 psi (172 kPa) @ 50 psi (345 kPa) | % Deflected 17% 26% 38% 49% | ASTM C165 MOD (0.120 in with no Carrier, 0.50 in dia. probe, 0.025 in/min rate) |
| Thermal | Operating Temperature Range, °F (°C) | -67 to 392 (-55 to 200) | Chomerics |
| | Thermal Conductivity, W/m-K | 3.2 | ASTM D5470 |
| | Thermal Impedance, "C-in²/W ("C-cm²/W) @ 10 psi, @ 0.04 in. (1mm) thick, "G" version | 0.4 (2.6) | ASTM D5470 |
| | Heat Capacity, J/g-K | 1 | ASTM E1269 |
| | Coefficient of Thermal Expansion, ppm/K | 150 | ASTM E831 |
| Electrical | Dielectric Strength, V _{AC} /mil (kV _{AC} /mm) | 150 (5.9) | ASTM D149 |
| | Volume Resistivity, ohm-cm | 10¹³ | ASTM D257 |
| | Dielectric Constant @ 1,000 kHz and at 0.039 (1mm) thick | 7.7 | ASTM D150 |
| | Dissipation Factor @ 1,000 kHz and at 0.039 (1mm) thick | 0.001 | CHO-TM-TP13 |
| Regulatory | Flammability Rating (See UL File E140244 for Details) | V-0 | UL 94 |
| | RoHS Compliant | Yes | Chomerics Certification |
| | Outgassing, % TML (% CVCM) | 0.13 (0.03) | ASTM E595 |
| | Shelf Life, months from date of shipment (PAD 30A) | 36 (18) | Chomerics |
| | Storage Conditions, °F (°C) @ 50% Relative Humidity | 50 to 90 (10 to 32) | Chomerics |



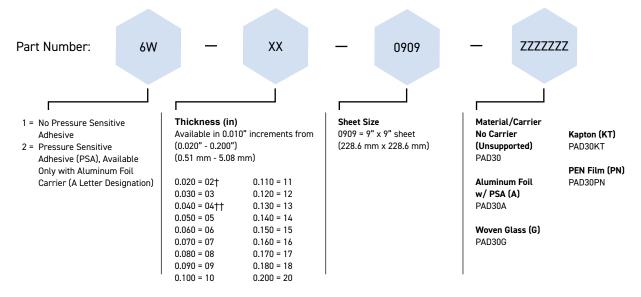
[†] Typical properties: these are not to be construed as specifications.

* Thickness tolerance, inches (mm) is $\pm 10\%$ 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 " (± 0.25 mm).

** The typical deflection range is approximately 5-40%.

THERM-A-GAP PAD 30 ORDERING INFORMATION

9" x 9" Sheets - Pressure Sensitive Adhesive (PSA) only with Aluminum Foil Carrier "G", "PN", "KT", "A" carrier and unsupported



- * See typical properties table for thicknesses
- † Minimum thickness for PAD30G, PAD30PN, PAD30KT and PAD30A
- †† Minimum PAD30 (unsupported) thickness

Ordering Information: Custom Configurations

Sheet thickness tolerance is ± 10% of the nominal thickness OR ±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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