

# Q-Pad 3<sup>®</sup> Thermally Conductive Pad

Easy to Handle, Greaseless Thermal Interface

The new Bergquist Q-Pad 3 eliminates problems associated with thermal grease such as contamination of electronic assemblies and reflow solder baths. Q-Pad 3 may be installed prior to soldering and cleaning, without worry.

Q-Pad 3 thermally conductive pad consists of graphite imbedded in a polymer matrix that is elastomeric on one side, and a pressure sensitive adhesive on the opposite side. When exposed to modest heat and pressure, the elastomer conforms to surface textures thereby creating an air free interface between heat generating components and heat sinks.

Fiberglass reinforcement enables Q-Pad 3 to withstand processing stresses without losing physical integrity.

## TYPICAL PROPERTIES OF Q-Pad 3 (w/adh, wo/adh)

| Property               | Unit of Measure                                                           | Typical Value                                                                            | Test Method                            |
|------------------------|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------|----------------------------------------|
| Color                  |                                                                           | Black                                                                                    | Visual                                 |
| Thickness W/O AC       | In.<br>(mm)                                                               | .005/.0055 (w/ac)<br>(.15)                                                               | ASTM D374                              |
| Thermal Conductivity   | W/m-°K                                                                    | 2.0 w/o ac<br>1.6 w/ac                                                                   | ASTM D5470                             |
| Thermal Impedance      | °C-in <sup>2</sup> /W<br>(m <sup>2</sup> -°K/w)<br>(m <sup>2</sup> -°K/w) | 0.10 w/o ac<br>0.14 w/ac<br>6.3 x 10 <sup>-5</sup> w/o ac<br>8.8 x 10 <sup>-5</sup> w/ac | Bergquist<br>Flat Plate<br>Test Method |
| Volume Resistivity     | Ohm-meter                                                                 | 10 <sup>-1</sup> w/o ac<br>10 <sup>1</sup> w/ac                                          | ASTM D4496                             |
| Adhesion (Q3 ac only)  |                                                                           |                                                                                          |                                        |
| Aluminum Release Liner | g/inch<br>g/inch                                                          | 122<br>16                                                                                | ASTM D 1000                            |

Q-Pad 3 is supplied as roll stock with the adhesive lightly adhered to a release liner. The material can be sold as easy to peel punched parts.

## ORDERING PROCEDURE

The last 2 digits define the part number selected.

To order Q-Pad 3 material, use Q3-(part number). Example: Q3AC-(P/N). Q-Pad 3 comes with adhesive.

## SAMPLE PART NUMBER

Represents Q-Pad 3 material  
Represents the part number  
(see standard configurations)

Q3-02

**SPECIAL SHAPES:** We produce thousands of specials. Tooling charges are about \$150 to \$200 for simple parts. Increased complexity or tighter tolerances increase tooling charges.

**TOLERANCES:** .015 inches are held on width, length, hole diameter and hole location. Contact the factory if tighter tolerances are required.

**SHEETS:** 6" x 6", 6" x 12", 8" x 8", 10" x 10", or 12" x 12" sheets are available from stock, with or without adhesive.

**ROLLS:** Sil-Pad materials are available in roll form, with or without adhesive. Contact the Factory.

U.L. File Number E59150

Q-Pads are produced exclusively by the Bergquist Company. Professional standards of manufacturing are meticulously adhered to, and Q-Pads are warranted to be free of defects in material or workmanship. Purchasers shall be solely responsible for determining the adequacy of the product of any and all uses to which the purchaser shall apply the product, and the application of the product by the purchaser shall not be subject to any implied warranty of fitness for that purpose.

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