### Foil-Format Grease Replacement for Maximum Heat Transfer

#### **Features and Benefits**

- Thermal impedance: 0.22°C-in<sup>2</sup>/W (@50 psi)
- Maximum heat transfer
- Aluminum foil coated both sides
- · Designed to replace thermal grease



Q-Pad II is a composite of aluminum foil coated on both sides with thermally / electrically conductive Sil-Pad rubber. The material is designed for those applications in which maximum heat transfer is needed and electrical isolation is not required. Q-Pad II is the ideal thermal interface material to replace messy thermal grease compounds.

Q-Pad II eliminates problems associated with grease such as contamination of reflow solder or cleaning operations. Unlike grease, Q-Pad II can be used prior to these operations. Q-Pad II also eliminates dust collection which can cause possible surface shorting or heat buildup.

TYPICAL PROPERTIES OF Q-PAD II						
PROPERTY	IMPERIAL VALUE		METRIC VALUE		TEST METHOD	
Color	Black		Black		Visual	
Reinforcement Carrier	Aluminum		Aluminum		_	
Thickness (inch) / (mm)	0.006		0.152		ASTM D374	
Hardness (Shore A)	93		93		ASTM D2240	
Continuous Use Temp (°F) / (°C)	-76 to 356		-60 to 180		_	
ELECTRICAL						
Dielectric Breakdown Voltage (Vac)	Non-Insulating		Non-Insulating		ASTM D149	
Dielectric Constant (1000 Hz)	NA		NA		ASTM D150	
Volume Resistivity (Ohm-meter)	10 <sup>2</sup>		10 <sup>2</sup>		ASTM D257	
Flame Rating	V-O		V-O		U.L.94	
THERMAL						
Thermal Conductivity (W/m-K)	2.5		2.5		ASTM D5470	
THERMAL PERFORMANCE vs PRESSURE						
Press	sure (psi)	10	25	50	100	200
TO-220 Thermal Performance (°C/W)		2.44	1.73	1.23	1.05	0.92
Thermal Impedance (°C-in²/W) (1)		0.52	0.30	0.22	0.15	0.12
1) The ASTM D5470 test fixture was used. The recorded value includes interfacial thermal resistance. These values are provided for						

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#### **Typical Applications Include:**

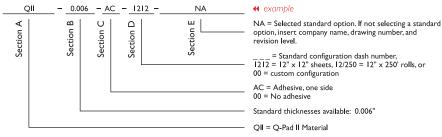
- Between a transistor and a heat sink
- Between two large surfaces such as an L-bracket and the chassis of an assembly
- Between a heat sink and a chassis
- Under electrically isolated power modules or devices such as resistors, transformers and solid state relays

## **Configurations Available:**

- Sheet form, die-cut parts and roll form
- With or without pressure sensitive adhesive

## **Building a Part Number**

# **Standard Options**



Note: To build a part number, visit our website at www.bergquistcompany.com.

Sil-Pad\*: U.S. Patents 4,574,879; 4,602,125; 4,602,678; 4,685,987; 4,842,911 and others

#### www.bergquistcompany.com

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The Bergquist Company - Asia Room 15, 8/F Wah Wai Industrial Centre No. 38-40, Au Pui Wan Street Fotan, Shatin, N.T. Hong Kong Ph: 852.2690.9296 Fax: 852.2690.2344 All statements, technical information and recommendations herein are based on tests we believe to be reliable, and THE FOLLOWING IS MADE IN LIEU OF ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MARKETABILITY AND FITNESS FOR PURPOSE. Sellers: and manufacturers: only obligation shall be to replace such quantity of the product proved to be defective. Before using user shall determine the suitability of the product for its intended use, and the user assumes all risks and liability whatsoever in connection therewith. NEITHER SELLER NOR MANUFACTURER SHALL BE LIABLE EITHER IN TORT OR IN CONTRACT FOR ANY LOSS OR DAMAGE, DIRECT, INCIDENTAL, OR CONSCOUNTIAL, INCLUDING LOSS OF PROFITS OR REVENUE ARSING OUT OF THE USE OR THE INABILITY TO USE A PRODUCT. No statement, purchase order or recommendations by seller or purchaser not contained herein shall have any force or effect unless in an agreement signed by the officers of the seller and manufacturer.

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