

Foil-Format Grease Replacement for Maximum Heat Transfer

Features and Benefits

- Thermal impedance: 0.22°C-in²/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 Si-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 D 374			
Hardness (Shore A)	93	93	ASTM D 2240			
Continuous Use Temp (°F) / (°C)	-76 to 356	-60 to 180	—			
ELECTRICAL						
Dielectric Breakdown Voltage (Vac)	Non-Insulating	Non-Insulating	ASTM D 149			
Dielectric Constant (1000 Hz)	NA	NA	ASTM D 150			
Volume Resistivity (Ohm-meter)	10 ²	10 ²	ASTM D 257			
Flame Rating	V-O	V-O	U.L.94			
THERMAL						
Thermal Conductivity (W / m-K)	2.5	2.5	ASTM D 5470			
THERMAL PERFORMANCE vs PRESSURE						
	Pressure (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-in ² /W) (1)		0.52	0.30	0.22	0.15	0.12

1) The ASTM D 5470 test fixture was used. The recorded value includes interfacial thermal resistance. These values are provided for reference only. Actual application performance is directly related to the surface roughness, flatness and pressure applied.

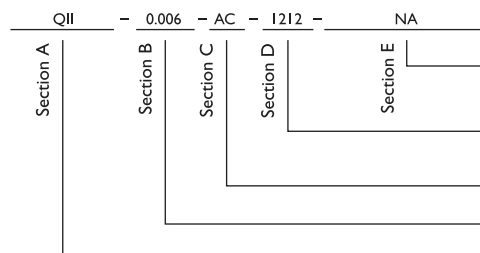
Typical Applications Include:

- 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

◀ example

NA = Selected standard option. If not selecting a standard option, insert company name, drawing number, and revision level.

— = Standard configuration dash number, I2I2 = 12" x 12" sheets, 12/250 = 12" x 250' rolls, or 00 = custom configuration

AC = Adhesive, one side
00 = No adhesive

Standard thicknesses available: 0.006"

QII = Q-Pad II Material

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

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