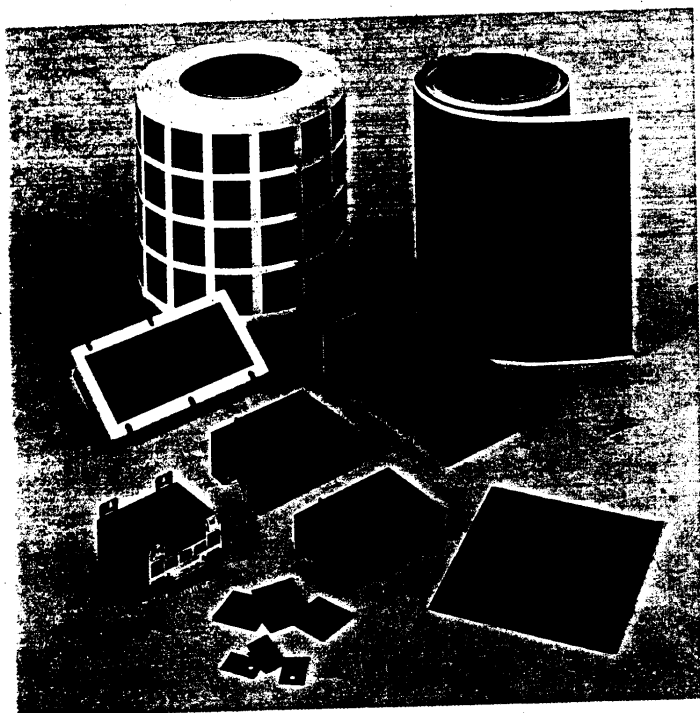


Flexible HI-FLOW™

Hi-Flow Coated Aluminum



Flexible HI-FLOW™ is the new "phase change" material designed specifically to replace grease as a thermal interface. Bergquist Flexible Hi-Flow is a filled polymer which is now available in a pad form for easier handling and installation. At 65°C Flexible Hi-Flow changes from a solid and flows (Phase Change Temperature) thereby assuring total wet-out of the interface. The thixotropic characteristics of the material keep Flexible Hi-Flow from flowing out of the interface. The result is a thermal interface comparable to grease, without the mess, contamination and difficult handling associated with grease.

Flexible HI-FLOW™ has thermal performance equal to grease with .05°C-in²/W contact thermal resistance.

Flexible HI-FLOW™ is used in applications where electrical isolation is not required.

Typical applications for Flexible Hi-Flow include CPUs mounted on a heat sink, power conversion modules or any other spring or clip mount application where grease is used.

Flexible HI-FLOW™ is coated on both sides of the aluminum substrate. The product is available as a dry material or with thermal acrylic adhesive on one side to aid in positioning.

Flexible HI-FLOW™ features include:

- Available in pad form as punched parts, sheets or rolls
- Low volatility - less than 1%
- Easy to handle in the manufacturing environment
- Flows but doesn't run like grease or wax under continuous heat or in vertical applications
- Low contact thermal resistance of 0.05 C-in²/W.
- Tack free at room temperature. Does not attract contaminants
- Scratch resistant at room temperature. Does not require protective liner in shipment when attached to heat sink.

Bergquist Flexible Hi-Flow™

Physical Properties	Typical Value	Test Method
Color	Dark Gray	Visual
Substrate	Aluminum	
Thickness of Substrate	0.0015 in. 0.04 mm	ASTM D374
Thickness of Thermal Acrylic Adhesive	0.0005" (one side) 0.0127 mm	ASTM D374
Thickness of Material	0.0055" ± .001" 0.14 mm	ASTM D374
Specific Gravity of Coating	1.8	ASTM D792
Phase Change Temperature (°C)	65	
Continuous Use Temperature (°C)	-30 to +130	

Thermal / Electrical Properties	Typical Value	Test Method
Thermal Resistance (°C-in ² -W ⁻¹) (C-mm ² /watt)	<0.05 w/o AC <.32 w/o AC	ASTM D5470*
Thermal Resistance (°C-in ² -W ⁻¹) (C-mm ² /watt)	0.05 w/AC 0.32 w/AC	
Thermal Conductivity of Coating w-m/K	0.9	ASTM D5470*
Dielectric Constant of Coating (100 Hz)	3.2	ASTM D150

* Modified ASTM D5470 test method used. Sample run at 70°C

The World Leader in Thermal Management

**THE
BERGQUIST
COMPANY**

5300 Edina Industrial Boulevard
Minneapolis, MN 55439
Tel: (612) 835-2322 • Fax: (612) 835-4156
CALL TOLL FREE: 1-800-347-4572
Website: www.bergquistcompany.com