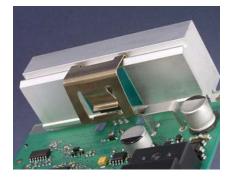
Hi-Flow[®] 300P

Features and Benefits

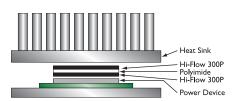
- Thermal impedance: 0.13°C-in²/W (@25 psi)
- Field-proven polyimide film
 - excellent dielectric performance
 - excellent cut-through resistance
- Outstanding thermal performance in an insulated pad



Hi-Flow 300P consists of a thermally conductive 55°C phase change compound coated on a thermally conductive polyimide film. The polyimide reinforcement makes the material easy to handle, and the 55°C phase change temperature minimizes shipping and handling problems.

Hi-Flow 300P achieves superior values in voltage breakdown and thermal performance when compared to its competition. The product is supplied on an easy release liner for exceptional handling in high volume manual assemblies. Hi-Flow 300P is designed for use as a thermal interface material between electronic power devices requiring electrical isolation to the heat sink.

Bergquist suggests the use of spring clips to assure constant pressure with the interface and power source. Please refer to thermal performance data to determine nominal spring pressure for your application.



We produce thousands of specials. Tooling charges vary depending on tolerances and complexity of the part.

Electrically Insulating, Thermally Conductive Phase Change Material

TYPICAL PRO						
PROPERTY	IMPERIAL VALUE		METRIC VALUE		TEST METHOD	
Color	Green		Green		Visual	
Reinforcement Carrier	Polyimide		Polyimide		_	
Thickness (inch) / (mm)	0.004 - 0.005		0.102 - 0.127		ASTM D374	
Film Thickness (inch) / (mm)	0.001 - 0.002		0.025 - 0.050		ASTM D374	
Elongation (%45° to Warp and Fill)	40		40		ASTM D882A	
Tensile Strength (psi) / (MPa)	7000		48		ASTM D882A	
Continuous Use Temp (°F) / (°C)	302		150			
Phase Change Temp (°F) / (°C)	131		55		ASTM D3418	
ELECTRICAL						
Dielectric Breakdown Voltage (Vac)	5000		5000		ASTM D149	
Dielectric Constant (1000 Hz)	4.5		4.5		ASTM D150	
Volume Resistivity (Ohm-meter)	1012		10 ¹²		ASTM D257	
Flame Rating	V-O		V-O		U.L. 94	
THERMAL						
Thermal Conductivity (W/m-K) (1)	1.6		1.6		ASTM D5470	
THERMAL PERFORMANCE vs PRESS	SURE					
Pres	sure (psi)	10	25	50	100	200
TO-220 Thermal Performance (°C/W) 0.0010"		0.95	0.94	0.92	0.91	0.90
TO-220 Thermal Performance (°C/W) 0.0015"		1.19	1.17	1.16	1.14	1.12
TO-220 Thermal Performance (°C/W) 0.0020"		1.38	1.37	1.35	1.33	1.32
Thermal Impedance (°C-in²/W) 0.0010" (2)		0.13	0.13	0.12	0.12	0.12
Thermal Impedance (°C-in²/W) 0.0015" (2)		0.17	0.16	0.16	0.16	0.15
Thermal Impedance (°C-in²/W) 0.0020" (2)		0.19	0.19	0.19	0.18	0.18

This is the measured thermal conductivity of the Hi-Flow coating. It represents one conducting layer in a three-layer laminate. The Hi-Flow coatings are phase change compounds. These layers will respond to heat and pressure induced stresses. The overall conductivity of the material in post-phase change, thin film products is highly dependent upon the heat and pressure applied. This characteristic is not accounted for in ASTM D5470. Please contact Bergquist Product Management if additional specifications are required. 2) The ASTM D5470 test fixture was used and the test sample was conditioned at 70°C prior to test. 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:

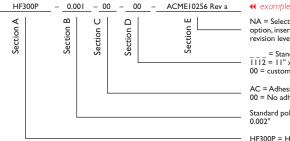
- Spring / clip mounted
- Discrete power semiconductors and modules

Configurations Available:

· Roll form, die-cut parts, and sheet form, with or without pressure sensitive adhesive

Building a Part Number

Standard Options



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

___ = Standard configuration dash number, |||2 = ||" x |2" sheets, ||/250 = ||" x 250' rolls, or 00 = custom configuration

AC = Adhesive, one side 00 = No adhesive

Standard polyimide thicknesses available: 0.001", 0.0015", 0.002'

HF300P = Hi-Flow 300P Phase Change Material

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

Hi- Flow®: U.S. Patent 6,197,859 and others

BERGQUIST www.bergquistcompany.com

The Bergquist Company North American Headquarters 18930 West 78th Street Chanhassen, MN 55317 Phone: 800-347-4572 Fax: 952-835-0430

The Bergquist Company - Europe Bramenberg 9a, 3755 BT Eemnes Netherlands Phone: 31-35-5380684 Fax: 31-35-5380295

The Bergquist Company - China Rm. 7C, Aihe Mansion No. 629 Ling Ling Road Shanghai, China 200030 Ph: 86-21-6464-2206 Fax: 86-21-6464-2209

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 IMPLED. NCLUDING THE IMPLED 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 subtribution of the product the purpose of the product proved to be defective. Before using user shall determine the subtribution of the product proved to be defective. 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 CONSEQUENTIAL, INCLUDING LOSS OF PROFITS TORKING RANNE ARISING OUT OF THE USE OR INCIDENTAL, OR CONSEQUENTIAL, INCLUDING LOSS OF PROFITS OR REVENUE ARISING 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 manufacture