

Hi-Flow® 225F-AC

Reinforced, Phase Change Thermal Interface Material

Features and Benefits

- Thermal impedance:
0.10°C-in²/W (@25 psi)
- Can be manually or automatically applied to the surfaces of room-temperature heat sinks
- Foil reinforced, adhesive-coated
- Soft, thermally conductive 55°C phase change compound

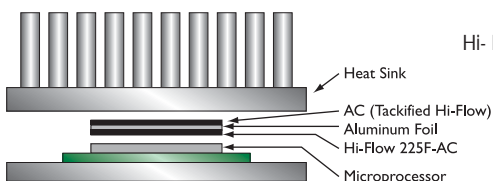


Hi-Flow 225F-AC is a high performance, thermal interface material for use between a computer processor and a heat sink. Hi-Flow 225F-AC consists of a soft, thermally conductive 55°C phase change compound coated to the top surface of an aluminum carrier with a soft, thermally conductive adhesive compound coated to the bottom surface to improve adhesion to the heat sink.

Above the 55°C phase change temperature, Hi-Flow 225F-AC wets-out the thermal interface surfaces and flows to produce low thermal impedance.

Hi-Flow 225F-AC requires pressure from the assembly to cause material flow. The Hi-Flow coatings resist dripping in vertical orientation.

The material includes a base carrier liner with differential release properties to facilitate simplicity in roll form packaging and application assembly. Please contact Bergquist Product Management for applications that are less than 0.07" square.



TYPICAL PROPERTIES OF HI-FLOW 225F-AC							
PROPERTY		IMPERIAL VALUE		METRIC VALUE		TEST METHOD	
Color		Black		Black		Visual	
Reinforcement Carrier		Aluminum		Aluminum		—	
Thickness (inch) / (mm)		0.004		0.102		ASTM D374	
Carrier Thickness (inch) / (mm)		0.0015		0.038		ASTM D374	
Continuous Use Temp (°F) / (°C)		248		120		—	
Phase Change Temp (°F) / (°C)		131		55		ASTM D3418	
ELECTRICAL							
Flame Rating		V-O		V-O		U.L. 94	
THERMAL							
Thermal Conductivity (W/m-K) (1)		1.0		1.0		ASTM D5470	
THERMAL PERFORMANCE vs PRESSURE							
		Pressure (psi)	10	25	50	100	200
TO-220 Thermal Performance (°C/W)			0.87	0.68	0.57	0.50	0.45
Thermal Impedance (°C-in²/W) (2)			0.12	0.10	0.09	0.08	0.07
1) 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.							

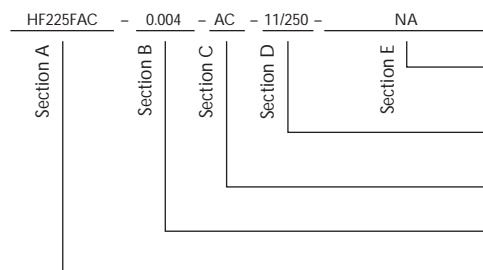
Typical Applications Include:

- Computer and peripherals
- Power conversion
- High performance computer processors
- Power semiconductors
- Power modules

Configurations Available:

- Roll form, kiss-cut parts, and sheet form

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,
1112 = 11" x 12" sheets, 11/250 = 11" x 250' rolls, or
00 = custom configuration

AC = Adhesive, one side

Standard thicknesses available: 0.004"

HF225FAC = Hi-Flow 225F-AC 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



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 -
European Headquarters
Bramenberg 9a, 3755 BT Eemnes
Netherlands
Phone: 31-35-5380684
Fax: 31-35-5380295

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

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