Hi-Flow® 225FT

Reworkable, Pressure Sensitive Phase Change Material

Features and Benefits

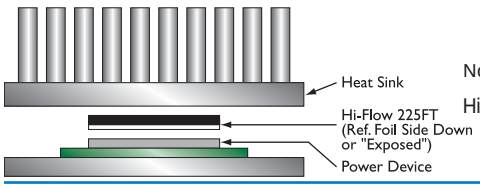
- Thermal impedance: 0.10°C-in²/W (@25 psi)
- Reworkable pressure sensitive
- Tabbed parts for easy application
- Compliant foil allows easy release and rework

Bergquist reworkable Hi-Flow 225FT thermal interface material provides a low thermal resistance path between hot components such as high performance processors and heat sinks. The material consists of a 55°C phase change compound bonded to one side of a conformable metal foil. This pressure sensitive material is easily applied to the heat sink and securely conforms to many mounting surfaces. Its compliant foil allows for easy release and reworking without leaving residue on CPU surfaces.

Above the 55°C phase change temperature, Hi-Flow 225FT wets-out the heat sink interface and flows to produce exceptional thermal performance. The thixotropic design of Hi-Flow 225FT requires pressure of the assembly to cause displacement and/or flow.

Application Methods

1. Hi-Flow 225FT pads are easily removed from the carrier liner and can be hand-applied to a room temperature heat sink, foil-side exposed. To reposition the heat sink assembly, simply lift gently to remove and reapply.



TYPICAL PROPERTIES OF HI-FLOW 225FT

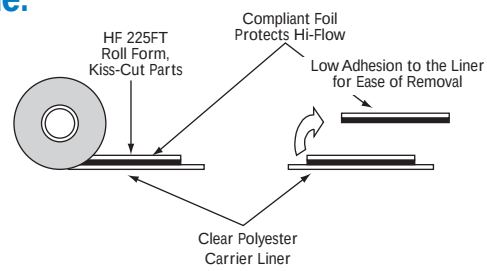
PROPERTY	IMPERIAL VALUE	METRIC VALUE	TEST METHOD
Color	Black	Black	Visual
Reinforcement Carrier	Aluminum	Aluminum	—
Thickness (inch) / (mm)	0.004	0.102	ASTM D374
Carrier Thickness (inch) / (mm)	0.001	0.025	ASTM D374
Continuous Use Temp (°F) / (°C)	248	120	—
Phase Change Temp (°F) / (°C)	131	55	ASTM D3418
ELECTRICAL			
Flame Rating	V-O	V-O	U.L. 94
THERMAL			
Thermal Conductivity (W/m-K) (1)	0.7	0.7	ASTM D5470
THERMAL PERFORMANCE vs PRESSURE			

Pressure (psi)	10	25	50	100	200
TO-220 Thermal Performance (°C/W)	0.93	0.74	0.63	0.52	0.42
Thermal Impedance (°C-in²/W) (2)	0.13	0.10	0.09	0.07	0.06

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
- High performance computer processors
- Burn-in testing
- Heat pipes
- Mobile processors



Configurations Available:

- Roll form with tabs and kiss-cut parts – no holes
- Custom thicknesses available

Hi-Flow 225FT is limited to a square or rectangular part design. Dimensional tolerance is +/- 0.020 inch (0.5mm).

Building a Part Number

HF225FT – 0.004 – 01 – 1112 – NA

- Section A: HF225FT = Hi-Flow 225FT Phase Change Material
- Section B: 0.004 = Standard thicknesses available: 0.004"
- Section C: 01 = Reworkable adhesive, one side
- Section D: 1112 = ____ = Standard Hi-Flow 225FT configuration, 11/250 = 11" x 250' rolls, or 00 = custom configuration
- Section E: NA = Selected standard option. If not selecting a standard option, insert company name, drawing number, and revision level.

Standard Options

◂◂ *example*

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

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

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