

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

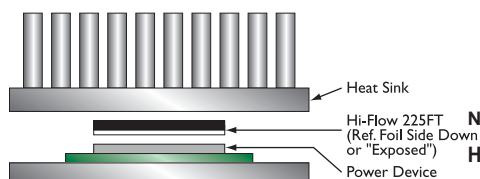


Bergquist reworkable Hi-Flow 225FT thermal interface material provides a low thermal resistance path between hot components such as high performance processors and heat sinks. The material consists of a 55°C phase change compound bonded to one side of a conformable metal foil. This pressure sensitive 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

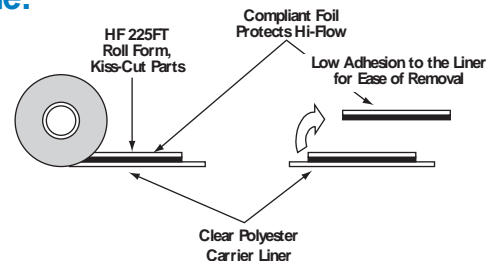
1. Hi-Flow 225FT pads are easily removed from the carrier liner and can be hand-applied to a room temperature heat sink, foil-side exposed. To reposition the heat sink assembly, simply lift gently to remove and reapply.



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

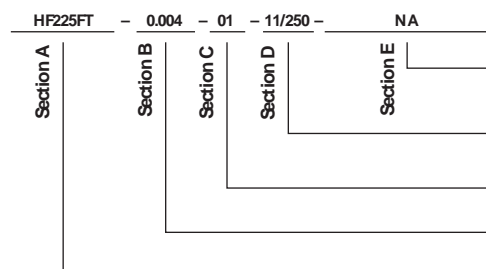


Configurations Available:

- 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



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

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

Standard Options

example

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

— = Standard Hi-Flow 225FT configuration, 11/250 = 11" x 250' rolls, or 00 = custom configuration

01 = Reworkable adhesive, one side

Standard thicknesses available: 0.004"

HF225FT = Hi-Flow 225FT Phase Change Material



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 Einmes
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

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 IMPLIED, INCLUDING THE IMPLIED 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 suitability of the product 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 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 manufacturer.

PDS_HF_225FT_12.08