

# Hi-Flow<sup>®</sup> 625

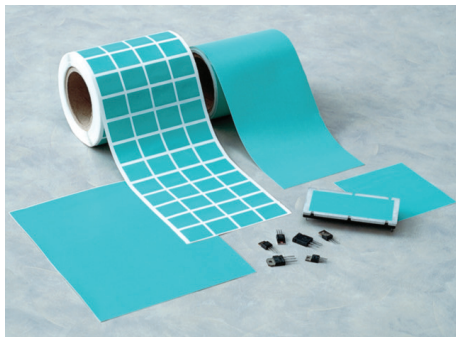
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## PRODUCT DESCRIPTION

Reinforced Phase Change  
Thermal Interface Material

## FEATURES AND BENEFITS

- Thermal impedance: 0.71°C-in<sup>2</sup>/W (@25 psi)
- Electrically isolating
- 65°C phase change compound coated on PEN film
- Tack-free and scratch-resistant



Hi-Flow<sup>®</sup> 625 is a film-reinforced phase change material. The product consists of a thermally conductive 65°C phase change compound coated on PEN film. Hi-Flow<sup>®</sup> 625 is designed to be used as a thermal interface material between electronic power devices that require electrical isolation and a heat sink. The reinforcement makes Hi-Flow<sup>®</sup> 625 easy to handle, and the 65°C phase change temperature of the coating material eliminates shipping and handling problems. The PEN film has a continuous use temperature of 150°C.

Hi-Flow<sup>®</sup> 625 is tack-free and scratch-resistant at production temperature and does not require a protective liner in most shipping situations. The material has the thermal performance of 2-3 mil mica and grease assemblies.

*Note: To build a part number, visit our website at [www.bergquistcompany.com](http://www.bergquistcompany.com).*

## TYPICAL PROPERTIES OF HI-FLOW 625

PROPERTY	IMPERIAL VALUE	METRIC VALUE	TEST METHOD			
Color	Green	Green	Visual			
Reinforcement Carrier	PEN Film	PEN Film	—			
Thickness (inch) / (mm)	0.005	0.127	ASTM D374			
Elongation (%45° to Warp and Fill)	60	60	ASTM D882A			
Tensile Strength (psi) / (MPa)	30,000	206	ASTM D882A			
Continuous Use Temp (°F) / (°C)	302	150	—			
Phase Change Temp (°F) / (°C)	149	65	ASTM D3418			
<b>ELECTRICAL</b>						
Dielectric Breakdown Voltage (Vac)	4000	4000	ASTM D149			
Dielectric Constant (1000 Hz)	3.5	3.5	ASTM D150			
Volume Resistivity (Ohm-meter)	10 <sup>10</sup>	10 <sup>10</sup>	ASTM D257			
Flame Rating	V-O	V-O	U.L. 94			
<b>THERMAL</b>						
Thermal Conductivity (W/m-K) (1)	0.5	0.5	ASTM D5470			
<b>THERMAL PERFORMANCE vs PRESSURE</b>						
	Pressure (psi)	10	25	50	100	200
TO-220 Thermal Performance (°C/W)		2.26	2.10	2.00	1.93	1.87
Thermal Impedance (°C-in <sup>2</sup> /W) (2)		0.79	0.71	0.70	0.67	0.61
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

- Spring / clip mounted
- Power semiconductors
- Power modules

## CONFIGURATIONS AVAILABLE

- Sheet form, die-cut parts and roll form
- With or without pressure sensitive adhesive

## Disclaimer

### Note:

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

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