



PureTemp® Thermal Energy Storage Materials

PureTemp thermal energy storage materials offer new levels of performance in storing or releasing large quantities of thermal energy at any given temperature. Our proprietary formulations and patented manufacturing processes yield superior quality phase change materials at cost effective prices.

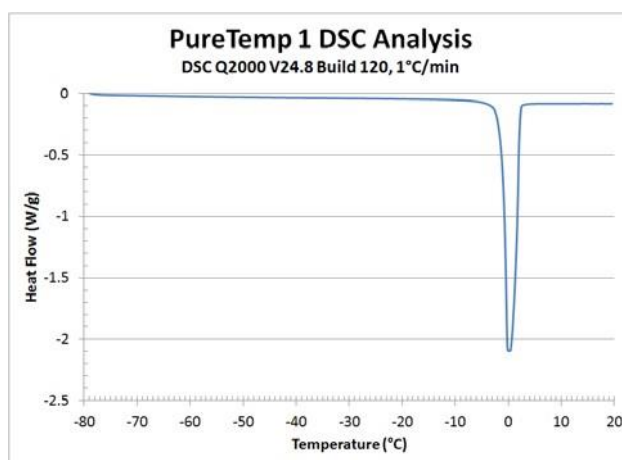
Some key properties:

- Thermal energy storage capacities which average 200 J/g
- Over 200 unique, engineered phase change transition temperatures between -40 °C and 151 °C
- Consistent, repeatable performance over thousands of thermal (melt/solidify) cycles

PureTemp 1 Technical Information

Appearance	Clear liquid
Melting point	1 °C
Heat storage capacity	301 J/g
Thermal conductivity (liquid)	0.60 W/m°C
Thermal conductivity (solid)	2.21 W/m°C
Density (liquid)	1.00 g/ml
Density (solid)	1.10 g/ml
Specific heat (liquid)	2.43 J/g°C
Specific heat (solid)	2.32 J/g°C

Typical physical properties are listed in the table above.



Thermal Cycle Stability

A thermal cycle stability study was performed on PureTemp 1's PCM family in which samples underwent a series of freeze and thaw cycles through 400 cycles. This study found that:

- The average latent heat for this family of PCMs passed the product specification throughout the study.
- The PCMs maintained a peak melting point throughout the study within 5% of the original melting point.

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