savENRG® Phase Change Materials

Akuratemp® Temperature-controlled Packaging

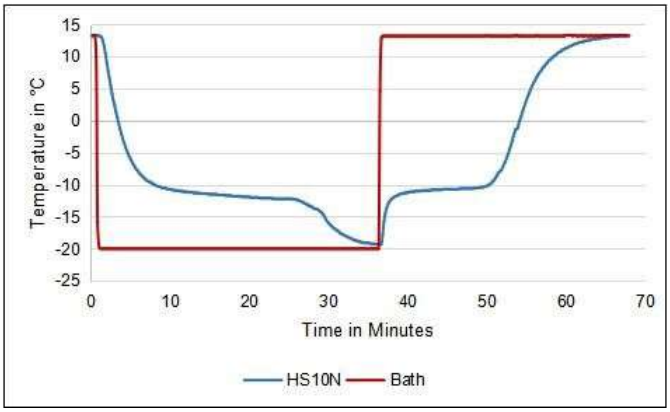
TECHNICAL DATA SHEET

TECHNICAL SPECIFICATION

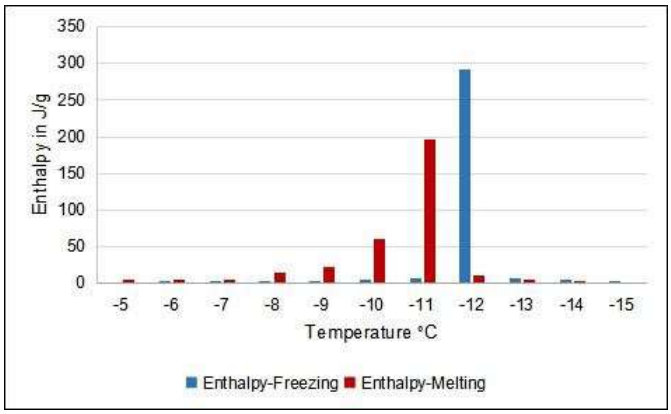
Product: **PCM-HS10N**
Description: Inorganic phase change material
Appearance: Off-white liquid/grey colored liquid @25°C

T-HISTORY TEST

Phase transition temperature range and stored thermal energy*



Temperature vs time curve



Enthalpy vs temperature curve

Property	Value**	Test method	Test conditions (if any)
Phase transition temperature			
Melting	-10°C	T-History	@ 0°C Liquid bath
Freezing	-11°C	T-History	@ -20°C Liquid bath
Nucleation temperature	-11°C	T-History	@ -20°C Liquid bath
Latent heat			
Melting	330 kJ/kg	T-History	@ -15 to 5 °C
Freezing	333 kJ/kg	T-History	@ 5 to -15 °C
Density			
Liquid	1125 kg/m^3	ASTM D891-95	@ 30 °C
Solid	1057 kg/m^3	ASTM D891-95	@ -20 °C
Specific heat			
Liquid	3.4 kJ/kgK	T-History	@ 30 °C
Solid	1.9 kJ/kgK	T-History	@ -12 °C
Thermal conductivity			
Liquid	0.60 W/mK	KD2Pro	@ 30 °C
Solid	4.25 W/mK	KD2Pro	@ -12 °C
Number of cycles tested	~2000	Internal	
Maximum operating temperature	90 °C		
Flammability	No		

* Determined by T-history
**Nominal Values. Actual values mentioned in batch test certificate.