PCM-OM35P

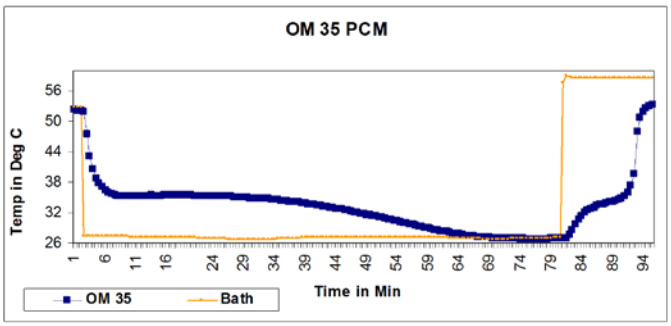
savENRG ™ Phase Change Materials for Thermal Energy Storage

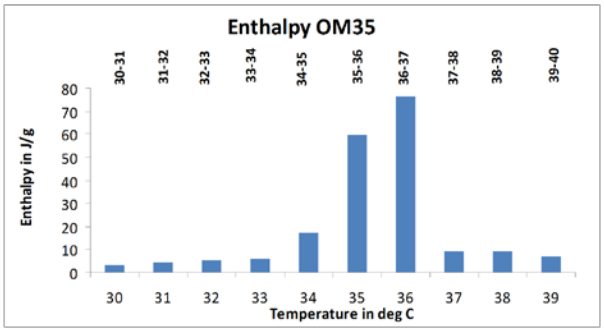
Organic, savENRG™ Phase Change Materials (PCMs) are a uniquely engineered mixture of organic materials that have high capacity to store thermal energy as latent heat. This energy is absorbed and/or released at specific temperatures. savENRG™ PCMs retain their latent heat without any change in physical or chemical properties for over thousands of cycles. PCM-OM35P is constituted of the right mix of various additives allowing equilibrium between solid and liquid phases to be attained at the melting point.

Technical Specification:

Product : savENRG PCM-OM35P
Description: Mixture of Organic materials
Appearance : White waxy flakes (below 35°C)

T-History Test





T-History graph OM 35

A 20g sample is taken in a test tube in molten condition and placed in a temperature controlled bath. A temperature sensor is placed in the test tube and bath to record the temperatures using a data logger. The bath is maintained at around 27 ^{0}C during the freezing cycle and at around 58^{0}C during the melting cycle.

Property	Value	Test Method	Test Conditions (if any)
Freezing Temp. (^{0}C)	35	T - History	@ 27 ^{0}C Bath
Latent Heat (kJ/kg)	197	T- History	From 30 to 40^{0}C
Liquid Density (g/cc)	0.87	ASTM D891-95	@ 45^{0}C
Solid Density (g/cc)	0.90	ASTM D891-95	@ 30^{0}C
Base Material	Organic chemicals	-	
Congruent Melting	Yes	-	
Sub Cooling	No	T-History	
Flammability	May be combustible at high temperature		
Thermal Stability (cycles)	Under test Internal		
Max. Operating Temp. (^{0}C)	~80		

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