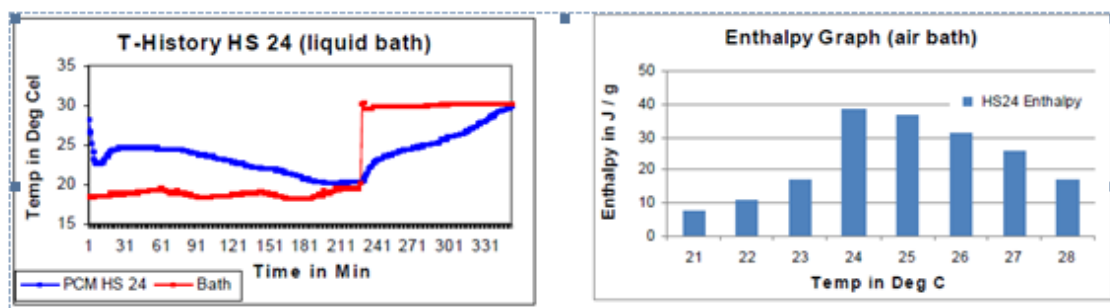


savENRG™ Phase Change Materials for Thermal Energy Storage

Inorganic, savENRG™ Phase Change Materials (PCMs) are a uniquely engineered mixture of hydrated salts that have high capacity to store thermal energy as latent heat. This energy is absorbed and/or released at specific temperatures. Inorganic PCMs retain their latent heat without any change in physical or chemical properties for over thousands of cycles.

Technical Specification:

Description : Mixture of Inorganic salts
 Appearance : Grey/Brown colored liquid



A 30g 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 19 °C during the freezing cycle and at 30° C during the melting cycle.

Property	Value	Test Method	Test Conditions (if any)
Melting Temp. (°C)	24	T - History	at 30 °C
Freezing Temp. (°C)	25	T - History	at 19 °C
Liquid Density (kg/m ³)	1540	ASTM D891-95	at 32 °C
Solid Density (kg/m ³)	1820	Internal	at 14 °C
Latent Heat (kJ/kg)	185	Calorimetric	solid PCM taken at 14° C
Specific Heat-Liquid (kcal/kg.K)	0.54	Calorimetric	at 32 °C
Thermal Conductivity (W/m.K) Liquid	0.54		
Thermal Conductivity (W/m.K) Solid	1.09		
Base Material	Inorganic chemical	-	
Congruent Melting	Yes	-	
Sub Cooling	Low	T-History	
Flammability	No	-	
Thermal Stability (cycles)	~2000	Internal	
Max. Operating Temp. (°C)	~80		

The information given here is meant as a guide to determining suitability of our products for the stated applications. The products are intended for use in industrial applications. The users should test the materials before use and satisfy themselves with regard to contents and suitability in the desired application. We guarantee that our products will meet our written specifications. Nothing herein shall constitute any other warranty expressed or implied. Recommendation herein may not be construed as freedom to infringe/operate under any third party patents. In the event of a proven claim, our liability is limited only to replacement of our material and in no case shall we be liable for special, incidental or consequential damages arising out of usage of our material. This datasheet is subject to change without prior notice.



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