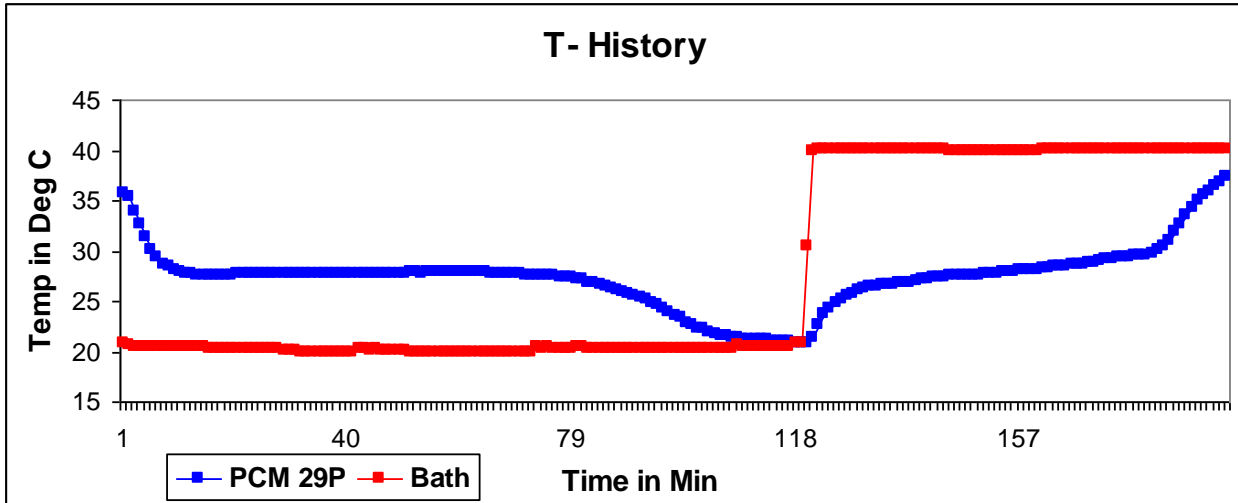


TECHNICAL DATA SHEET`

Phase Change Materials (PCM) are hydrated salts that have large amount of heat energy stored in the form of Latent Heat which is absorbed or released when the materials change state from solid to liquid or liquid to solid. The PCM retains its latent heat without any change in physical or chemical properties over thousands of cycles.

Technical Specification:

Description : Mixture of CaCl₂ and other salts
 Appearance : Light Grey/Brown colored liquid



A 30 g 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 22 °C during the freezing cycle and at 36 °C during the melting cycle.

Property	Value	Test Method	Test Conditions (if any)
Melting Temp. (°C)	29	T - History	@ 36 °C
Freezing Temp. (°C)	29	T - History	@ 22 °C
Liquid Density (kg/m ³)	1550	ASTM D891-95	@ 39 °C
Solid Density (kg/m ³)	1840	Internal @ 19 °C	
Latent Heat (kJ/kg)	190	Calorimetric	Solid PCM taken at 15 °C
Specific Heat-Liquid (kcal/kg.K)	0.54	Calorimetric	@ 32 °C
Thermal Conductivity (W/m.K) Liquid	0.54		
Thermal Conductivity (W/m.K) Solid	1.09		
Base Material	CaCl ₂	-	
Congruent Melting	Yes	-	
Sub Cooling	No	-	
Flammability	No	-	
Thermal Stability (cycles)	~ 5000	Internal	
Max. Operating Temp. (°C)	~80		



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