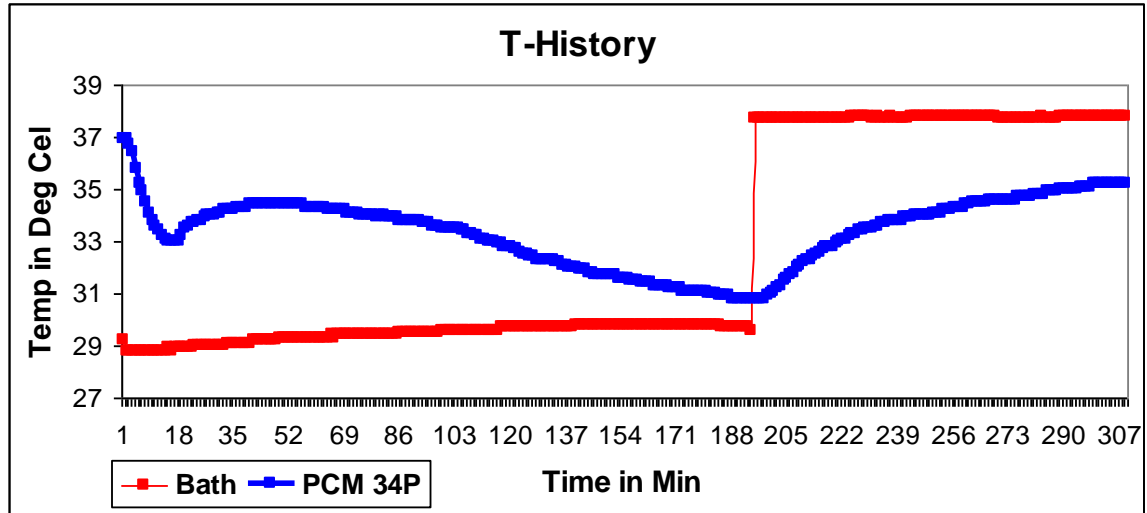


Phase Change Materials (PCM) are hydrated salts that have large amount of heat energy stored in the form of Latent Heat which is absorbed or released when the materials change state from solid to liquid or liquid to solid. The PCM retains its latent heat without any change in physical or chemical properties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

**Technical Specification:**

Description : Mixture of Inorganic salts  
 Appearance : Light White/Grey colored liquid



A 55g 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 30 °C during the freezing cycle and at 38 °C during the melting cycle.

Property	Value	Test Method	Test Conditions (if any)
Melting Temp. (°C)	35	T - History	@ 38 °C
Freezing Temp. (°C)	34	T - History	@ 30 °C
Liquid Density (kg/m <sup>3</sup> )	1850	ASTM D891-95	@ 44 °C
Solid Density (kg/m <sup>3</sup> )	1980	Internal	@ 24 °C
Latent Heat (kJ/kg)	150	Calorimeter	solid PCM taken at 24 °C
Specific Heat-Liquid (kcal/kg.K)	0.56	Calorimeter	@ 44 °C
Thermal Conductivity (W/m.K) Liquid	0.47		
Thermal Conductivity (W/m.K) Solid	0.5 to 0.6		
Base Material	Inorganic chemical	-	
Congruent Melting	Yes-		
Sub Cooling	Low	T-History	
Flammability	No	-	
Thermal Stability (cycles)	~2000	Internal	
Max. Operating Temp. (°C)	~80		



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