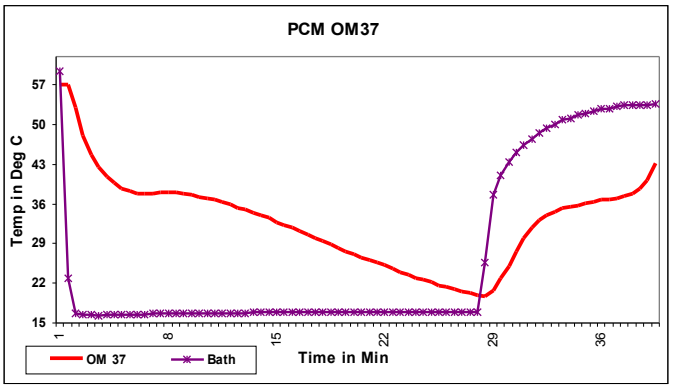
PCM OM37P

TECHNICAL DATA SHEET

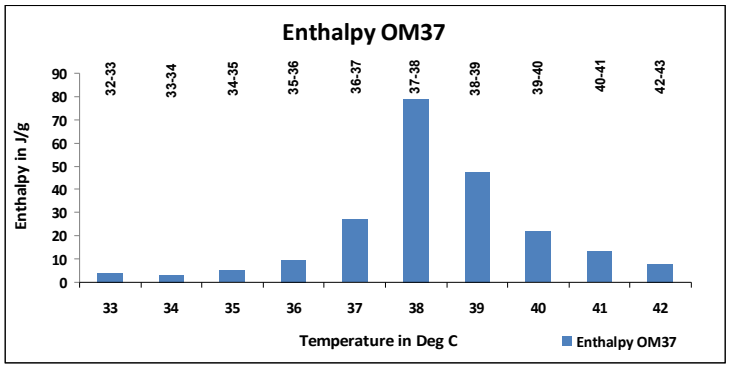
Bio-based Phase Change Materials (PCM) are organic material that have large amount of heat energy stored in the form of Latent Heat which is absorbed or released when the materials change state from solid to liquid or liquid to solid. The PCM retains its latent heat without any change in physical or chemical properties over thousands of cycles. Ingredients are from 100% bio based raw materials which are non hazardous, biodegradable and non toxic.

Technical Specification:

Product : savENRG
Series : PCM OM37P
Description : Mixture of bio-based materials
Appearance : White waxy flakes (below 37^{0}C)



T-History graph OM 37



Enthalpy Vs Temp OM 37

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 datalogger. The bath is maintained at around 27 ^{0}C during the freezing cycle and at around 57^{0}C during the melting cycle.

Property	Value	Test Method	Test Conditions (if any)
Freezing Temp. (^{0}C)	37	T - History	@ 27 ^{0}C Bath
Latent Heat (kJ/kg)	218	T- History	From 32 to 41^{0}C
Liq Density (g/cc)	0.88	ASTM D891-95	@ 47^{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		
Max. Operating Temp. (^{0}C)	~80		

RGEES, LLC
1465 Sand Hill Road, Suite # 171, Candler, NC 28715
Tel: +1.828.708.7178 E-Mail: info@rgees.com
www.rgees.com