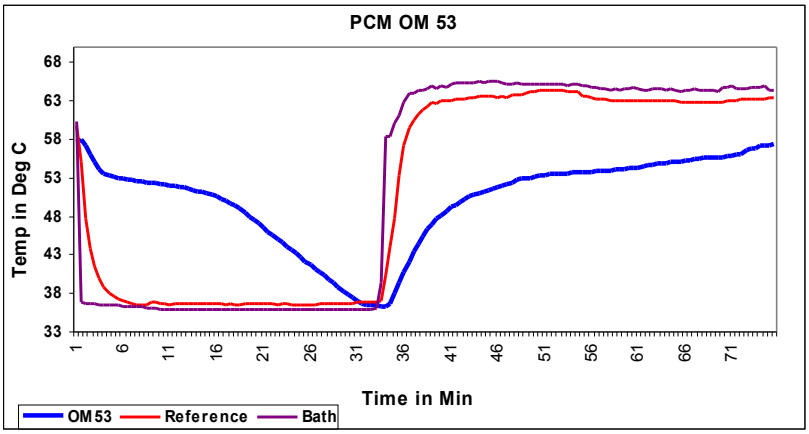
PCM OM53P

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 OM53P
Description : Mixture of bio-based materials
Appearance : White waxy flakes (below 53^{0}C)



T-History graph OM 53

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 36 ^{0}C during the freezing cycle and at around 65^{0}C during the melting cycle.

Property	Value	Test Method	Test Conditions (if any)
Freezing Temp. (^{0}C)	53	T - History	@ 36 ^{0}C Bath
Latent Heat (kJ/kg)	192	Calorimetry	
Liq Density (g/cc)	0.86	ASTM D891-95	@ 63^{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