2400 E. River Rd.
Dayton, Ohio 45439

Tel: 937.236.2213 • Fax: 937.236.2217
e-mail: microtek@microteklabs.com
www.microteklabs.com

PCM 56

Pure Phase Change Material
Phase Change: 56°C, 132.8°F

DESCRIPTION

Pure (or raw) Phase Change Materials (PCMs) are substances which can store and release large amounts of energy by undergoing a phase change between its liquid and solid states.

As the PCM cycles between the liquid and solid states it holds the temperature around its particular melt point. PCMs are unique in that they provide a completely passive thermal regulation system. Under the proper conditions, PCMs can cycle thousands of times. Microtek offers pure PCMs with melt points in the range of -30°C to +70°C. Custom temperatures are available.

APPLICATIONS

Pure PCMs are used to regulate temperatures by providing both cooling and heating effects, and for heat storage, in a variety of applications.

Pure PCMs are widely used in application areas such as:

- Transport / Shipping Solutions – to protect food, beverages, pharmaceuticals, vaccines, medical products, and temperature-sensitive chemicals in transit.

- Thermal Energy Storage (TES) – heat storage and release in conjunction with solar energy and HVAC systems.

- Consumer Products – cooling vests, coolers, thermos, lunch containers, and packaging.

- Electronics - for cooling electrical components in tablets, phones, laptops, data centers, and remote-access equipment such as telecommunication stations.

PROPERTIES

The PCM 56 product exhibits the following general properties:

Typical Properties	
Appearance	Above melt point: Liquid, colorless Below freeze point: Solid, opaque
Form	Bulk
Type	Paraffin
PCM Content	100%
Melting point	56°C (132.8°F)
Heat of Fusion	180-190 J/g
Density	0.82 g/ml
Thermal Cycling	Multiple

PACKAGING

This product is generally shipped in 1 gallon pails containing 6 pounds of PCM or in 55-gallon drums containing 330 pounds of PCM. 330 gallon totes are also available.

HEALTH AND SAFETY

Please refer to the Safety Data Sheet (SDS) for necessary safety and handling precautions for this product.