

# PCM 18

Pure Phase Change Material  
Phase Change: 18°C, 64.4°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 43°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.
- **Consumer Products** – cooling vests, coolers, thermos, lunch containers, and packaging.

## PACKAGING

This product is generally shipped in 1 gallon pails (6 lbs) or 55 gallon drums (330 lbs).

## HEALTH AND SAFETY

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

## PROPERTIES

PCM 18 typically exhibits these general properties:

### Typical Properties

Appearance	Above melt point: Liquid, colorless Below freeze point: Solid, opaque
Form	Bulk
Type	Paraffin
PCM Content	100%
Melting point	18°C, 64.4°F
Heat of fusion	205-215 J/g
Thermal Cycling	Multiple

Visit [www.microteklabs.com](http://www.microteklabs.com) or call 937.236.2213 for more information on your thermal management needs.

IMPORTANT NOTE: This data has been compiled from testing that Microtek Labs believes reliable and is supplied for informational purposes only. Microtek Labs encourages purchasers to validate this data and the product's fitness for use in the purchaser's process by performing their own tests.

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