

MacroPCM 43

Macroencapsulated Phase Change Material

Phase Change: 43°C, (109.4°F)

DESCRIPTION

Macrocapsule PCM's, or macroPCM's are large 2 - 4-mm beads containing high concentrations of phase change material developed by Microtek for use in cooling vests and garments. The PCMs are low melting paraffin waxes, with melt points in the range of -30°C to 56°C that can absorb and release large amounts of heat. The macrocapsules are delivered as white particles. Other colors can be utilized, if required. The manufacture of the MacroPCM's is protected under U. S. patent.

APPLICATIONS

The macroPCM particles are used to regulate the body temperature of individuals who work in hot environments, e.g. costume characters in theme parks or soldiers in a desert setting. The macroPCMs absorb excess heat and permit the user to function for a longer time at a more comfortable temperature. The particles have been loaded into vests that are worn as an undergarment to allow for close skin contact.

PROPERTIES

The Macro PCM 43 product exhibits the following general properties:

Typical Properties

Appearance	White to slightly off white in color.
Form	Beads > 97% solids
PCM Content	80% effective PCM
Mean Particle Size	2mm - 4mm
Melting point	43°C (109.4°F)
Heat of Fusion	185 - 195 J/g
Specific Gravity	Approx. 0.9 g/ml
Thermal Cycling	Multiple

PACKAGING

This product is generally shipped in 50-gallon fiber drums of 140 pounds net weight. Sample quantities may be order for customers requiring a smaller amount of product.

HEALTH AND SAFETY

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

