

Phase Change Materials (PCMs) – A Global Market Overview

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Abstracts

DESCRIPTION:

Report Synopsis

Phase Change Materials (PCMs) are finding increasing use in logistics & cold chains, buildings, textiles and electronic applications, which are driving demand for these unique solutions. Temperature controlled packaging based on PCMs is used for transporting life-saving drugs and pharmaceuticals and perishable foods. These materials enable in maintaining the required temperatures within refrigerated trucks and containers. Electronic applications of PCMs are poised to post the second-fastest growth over the analysis period, which can be attributed to rapidly progressing technology leading to increasing power and speed of electronic devices, which, in turn, need better solutions for thermal management.

Building & Construction is estimated the largest application for PCMs with consumption of worth US\$558 million in 2018 while Logistics & Cold Chains is projected to grow faster at a CAGR of 23% during the analysis period 2017-2023 closely followed by Electronics with 21.2%.

Research Findings & Coverage

PCMs market is analyzed in this report with respect to material types and major application areas

The study extensively analyzes each major application of phase change materials with a market snapshot for analysis period across the major regions

Waste Sawdust-Based Composite Phase Change Materials Show Superior Thermal Conductivity

Thermal Properties of Bio-based PCMs Enhanced with Exfoliated Graphite Nanoplatelets

Introduction of Silicon Carbide in Composite PCMs for Battery Thermal Management

Coconut Fat as a Bio-Based PCM in Building Applications

Key business trends focusing on product innovations/developments, M&As, JVs and other recent industry developments

Major companies profiled – 38

The industry guide includes the contact details for 49 companies

Product Outline

The report analyzes the market for the key types of Phase Change Materials including:

Bio-Based

Inorganic

Organic

The market for Application Areas of Phase Change Materials analyzed comprise the following:

Building & Construction

Electronics

Logistics & Cold Chains

Textiles

Others

Analysis Period, Units and Growth Rates

The report reviews, analyzes and projects the global Phase Change Materials market for the period 2014-2023 in terms of market value in US\$ and the compound annual growth rates (CAGRs) projected from 2017 through 2023

Geographic Coverage

North America (The United States, Canada and Mexico)

Europe (France, Germany, Italy, Russia, Spain, The United Kingdom and Rest of Europe)

Asia-Pacific (China, India, Japan, South Korea and Rest of Asia-Pacific)

South America (Argentina, Brazil and Rest of South America)

Rest of World

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- Advansa BV (The Netherlands)
- AI Technology, Inc. (United States)
- Climator Sweden AB (Sweden)

Cold Chain Technologies, Inc. (United States)
Croda International PLC (United Kingdom)
Datum Phase Change Limited (United Kingdom)
DOW Corning Corporation (United States)
Global E-Systems Europe B.V. (The Netherlands)
Henkel AG & Co. KGaA (Germany)
Honeywell Electronic Materials, Inc. (United States)
Insolcorp, LLC. (United States)
Kaplan Energy (France)
Laird PLC (United Kingdom)
Microtek Laboratories, Inc. (United States)
Outlast Technologies LLC (United States)
Parker Chomerics (United States)
Phase Change Material Products Limited (United Kingdom)
Phase Change Energy Solutions, Inc. (United States)
Phase Change Products Pty., Ltd. (Australia)
PLUSS Advanced Technologies Pvt., Ltd. (India)
Puretemp LLC (United States)
RGEES, LLC. (United States)
Rubitherm Technologies GmbH (Germany)
Shenzhen Aochuan Technology Co., Ltd. (China)
Shin-Etsu Chemical Co., Ltd. (Japan)

5. KEY BUSINESS TRENDS

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Launch of Outlast® Xelerate Climate Regulating PCM with Heat Spreader Technology
Bio-Phase Change Material Technology Used in Building the First New High School in Waddell

KoolTemp® GTS Enshield, Industry's First Pallet Cover System with Integrated PCM

Croda Join Forces with INUTEQ® to Market PCM Technologies in Cooling Apparel

The First Solid Phase Change Material for Safe Shipment of Drugs, Vaccines and Clinical Trials Introduced by CCT

Gelled Phase Change Materials Developed by PureTemp LLC

Outlast® Heat Managing Phase Change Materials Released

Addition of Four New Containment Options for PureTemp PCM by Vesl

Entropy Solutions is now the Member of RAL Quality Association PCM

Vesl LLC Offers PureTemp Phase Change Material in Encapsulated Form

Positive Influence of Phase Change Materials on Sleeping Comfort

Launch of New Honeywell PTM6000 Phase Change Material
Via Blood Transporter from Sonoco ThermoSafe Features PureTemp Biobased Phase
Change Material
New Outlast® PCM Acrylic Fiber Introduced by Outlast
Integration of Advanced Thermal Interface Materials from Honeywell in Making Video
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Appvion, Inc. (United States)

Cold Chain Technologies, Inc. (United States)

Coolcomposites, Inc. (United States)

Cryopak Industries, Inc. (United States)

Dow Corning Corporation (United States)

Honeywell Electronic Materials, Inc. (United States)

Insolcorp, LLC. (United States)

Microtek Laboratories, Inc. (United States)

Outlast Technologies LLC (United States)

Parker Chomerics (United States)

Phase Change Energy Solutions, Inc. (United States)

PureTemp LLC (United States)

RGEES, LLC. (United States)

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Advansa BV (The Netherlands)

CIAT Group (France)

Climator Sweden AB (Sweden)

Croda International PLC (United Kingdom)

Datum Phase Change Limited (United Kingdom)

EMCO Klimatechnik GmbH & Co., KG. (Germany)

Ewald Dörken AG (Germany)

Global E-Systems Europe B.V. (The Netherlands)

Henkel AG & Co. KGaA (Germany)

lolitec Ionic Liquids Technologies GmbH (Germany)

Kaplan Energy (France)

Laird PLC (United Kingdom)

Phase Change Material Products Limited (United Kingdom)

Royal Dutch Shell PLC (The Netherlands)

Rubitherm Technologies GmbH (Germany)

Salca BV (The Netherlands)

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