

The Global Market for Phase Change Materials 2024-2034

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Abstracts

Phase Change Materials (PCMs) are thermal compounds that absorb and release thermal energy during phase

transitions between solid and liquid. This allows effective thermal storage and temperature regulation. A wide range

of PCMs have been developed including organic (paraffins and fatty acids), inorganics (salt hydrates and metallic)

and eutectic mixtures of organic and/or inorganic materials. PCM products are used to improve whole-building

energy efficiency in retail, commercial, hospitality, and industrial applications; enable safe transport of sensitive

food and pharmaceutical products; and provide enhanced thermal storage capabilities for industrial and

commercial processes, among other applications.

The Global Market for Phase Change Materials 2024-2034 provides a comprehensive analysis of the global phase

change materials (PCMs) market. The report covers PCM types including paraffins, fatty acids, salt hydrates,



eutectics, and metallics. Applications in buildings, cold chain, electronics cooling, textiles, aerospace, automotive,

and energy storage are assessed.

The report provides PCM global market revenues, regional market breakdowns, growth drivers, trends, technology

overview, SWOT analysis, pricing, patents, and profiles 60+ leading PCM manufacturers.

Multiple tables summarize key properties, advantages/disadvantages, applications, and market metrics for major

PCM technology segments. Future outlook assesses opportunities in encapsulation, bio-PCMs, heating/cooling

integration, electronics substrates, medical textiles, building integration and cold storage.

The report helps decision makers in the PCM value chain including materials suppliers, heating/cooling OEMs,

electronics brands, logistics providers, architects, and specialty chemical companies understand the fast-growing

multi-billion dollar PCM market and identify new application and partnership opportunities.

Report contents include:

Overview of phase change materials, their properties, classification, and applications.

PCM market size, growth drivers, competitive landscape, developments, opportunities.

Working principle, types of PCMs, encapsulation methods, comparative analysis.



Thermal energy storage concepts.

Recent patents related to PCM technologies.

Cost ranges for different PCM types.

Total PCM global market size and forecasts. Breakdown by market segments and regions.

PCM adoption in buildings, electronics cooling, cold storage, textiles, aerospace, automotive etc.

Profiles of 60+ companies manufacturing various types of PCMs. Companies profiled include

Axiotherm GmbH, Climator Sweden AB, HeatVentors, i-TES, Kaneka, Lightstandard Technology,

PureTemp LLC, Rubitherm Technologies, and Swave Photonics NV.



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