

# Advanced Phase Change Materials (PCM) Industry Research Report 2024

<https://marketpublishers.com/r/A9CC9AC79446EN.html>

Date: April 2024

Pages: 120

Price: US\$ 2,950.00 (Single User License)

ID: A9CC9AC79446EN

## Abstracts

### Summary

Phase change materials (PCMs) are substances with a high enthalpy of fusion, also known as latent heat, meaning they can store large quantities of heat energy as they change phase. When melting, they absorb heat and maintain the temperature of the environment at a certain value until completely molten. When the temperature of the environment falls below the crystallisation temperature, the PCM will start to solidify, releasing large quantities of heat and maintaining the temperature until completely solid.

Latent heat storage can be achieved through liquid→solid, solid→liquid, solid→gas and liquid→gas phase changes. However, only solid→liquid and liquid→solid phase changes are practical for PCMs. Although liquid→gas transitions have a higher heat of transformation than solid→liquid transitions, liquid→gas phase changes are impractical for thermal storage because large volumes or high pressures are required to store the materials in their gas phase. Solid→solid phase changes are typically very slow and have a relatively low heat of transformation.

Phase change materials are products that release or absorb heat when they change from one phase to another (usually from solid to liquid or vice versa). These materials store thermal energy in the form of latent heat, which is released when they freeze or crystallize and absorbed when they melt at their respective melting/freezing temperature points. Hence, they are used in a broad range of applications that require thermal control and management.

Based on the technology of the material used, advanced PCM are broadly categorized as inorganic PCM, organic PCM and Bio-based PCM.

According to APO Research, The global Advanced Phase Change Materials (PCM) market was valued at US\$ million in 2023 and is anticipated to reach US\$ million by 2030, witnessing a CAGR of xx% during the forecast period 2024-2030.

North American market for Advanced Phase Change Materials (PCM) is estimated to increase from \$ million in 2024 to reach \$ million by 2030, at a CAGR of % during the forecast period of 2025 through 2030.

Asia-Pacific market for Advanced Phase Change Materials (PCM) is estimated to increase from \$ million in 2024 to reach \$ million by 2030, at a CAGR of % during the forecast period of 2025 through 2030.

Europe market for Advanced Phase Change Materials (PCM) is estimated to increase from \$ million in 2024 to reach \$ million by 2030, at a CAGR of % during the forecast period of 2025 through 2030.

The major global manufacturers of Advanced Phase Change Materials (PCM) include , etc. In 2023, the world's top three vendors accounted for approximately % of the revenue.

## Report Scope

This report aims to provide a comprehensive presentation of the global market for Advanced Phase Change Materials (PCM), with both quantitative and qualitative analysis, to help readers develop business/growth strategies, assess the market competitive situation, analyze their position in the current marketplace, and make informed business decisions regarding Advanced Phase Change Materials (PCM).

The report will help the Advanced Phase Change Materials (PCM) manufacturers, new entrants, and industry chain related companies in this market with information on the revenues, sales volume, and average price for the overall market and the sub-segments across the different segments, by company, by Type, by Application, and by regions.

The Advanced Phase Change Materials (PCM) market size, estimations, and forecasts are provided in terms of sales volume (MT) and revenue (\$ millions), considering 2023 as the base year, with history and forecast data for the period from 2019 to 2030. This report segments the global Advanced Phase Change Materials (PCM) market comprehensively. Regional market sizes, concerning products by Type, by Application,

and by players, are also provided. For a more in-depth understanding of the market, the report provides profiles of the competitive landscape, key competitors, and their respective market ranks. The report also discusses technological trends and new product developments.

### Key Companies & Market Share Insights

In this section, the readers will gain an understanding of the key players competing. This report has studied the key growth strategies, such as innovative trends and developments, intensification of product portfolio, mergers and acquisitions, collaborations, new product innovation, and geographical expansion, undertaken by these participants to maintain their presence. Apart from business strategies, the study includes current developments and key financials. The readers will also get access to the data related to global revenue, price, and sales by manufacturers for the period 2019-2024. This all-inclusive report will certainly serve the clients to stay updated and make effective decisions in their businesses. Some of the prominent players reviewed in the research report include:

BASF

Honeywell

Cryopak

Entropy Solutions Inc.

Climator Sweden AB

Phase Change Energy Solutions

Outlast Technologies

Dow Building Solutions

Chemours Company

PCM Energy Ltd

Rubitherm Technologies GmbH

## Advanced Phase Change Materials (PCM) segment by Type

Organic

Inorganic

Bio-Based

## Advanced Phase Change Materials (PCM) segment by Application

Building & Construction

Refrigeration

Consumer Goods

Others

## Advanced Phase Change Materials (PCM) Segment by Region

North America

U.S.

Canada

Europe

Germany

France

U.K.

Italy

Russia

Asia-Pacific

China

Japan

South Korea

India

Australia

China Taiwan

Indonesia

Thailand

Malaysia

Latin America

Mexico

Brazil

Argentina

Middle East & Africa

Turkey

Saudi Arabia

UAE

## Key Drivers & Barriers

High-impact rendering factors and drivers have been studied in this report to aid the readers to understand the general development. Moreover, the report includes restraints and challenges that may act as stumbling blocks on the way of the players. This will assist the users to be attentive and make informed decisions related to business. Specialists have also laid their focus on the upcoming business prospects.

## Reasons to Buy This Report

1. This report will help the readers to understand the competition within the industries and strategies for the competitive environment to enhance the potential profit. The report also focuses on the competitive landscape of the global Advanced Phase Change Materials (PCM) market, and introduces in detail the market share, industry ranking, competitor ecosystem, market performance, new product development, operation situation, expansion, and acquisition. etc. of the main players, which helps the readers to identify the main competitors and deeply understand the competition pattern of the market.
2. This report will help stakeholders to understand the global industry status and trends of Advanced Phase Change Materials (PCM) and provides them with information on key market drivers, restraints, challenges, and opportunities.
3. This report will help stakeholders to understand competitors better and gain more insights to strengthen their position in their businesses. The competitive landscape section includes the market share and rank (in volume and value), competitor ecosystem, new product development, expansion, and acquisition.
4. This report stays updated with novel technology integration, features, and the latest developments in the market
5. This report helps stakeholders to gain insights into which regions to target globally
6. This report helps stakeholders to gain insights into the end-user perception concerning the adoption of Advanced Phase Change Materials (PCM).
7. This report helps stakeholders to identify some of the key players in the market and understand their valuable contribution.

## Chapter Outline

Chapter 1: Research objectives, research methods, data sources, data cross-validation;

Chapter 2: Introduces the report scope of the report, executive summary of different market segments (by region, product type, application, etc), including the market size of each market segment, future development potential, and so on. It offers a high-level view of the current state of the market and its likely evolution in the short to mid-term, and long term.

Chapter 3: Detailed analysis of Advanced Phase Change Materials (PCM) manufacturers competitive landscape, price, production and value market share, latest development plan, merger, and acquisition information, etc.

Chapter 4: Provides profiles of key players, introducing the basic situation of the main companies in the market in detail, including product production/output, value, price, gross margin, product introduction, recent development, etc.

Chapter 5: Production/output, value of Advanced Phase Change Materials (PCM) by region/country. It provides a quantitative analysis of the market size and development potential of each region in the next six years.

Chapter 6: Consumption of Advanced Phase Change Materials (PCM) in regional level and country level. It provides a quantitative analysis of the market size and development potential of each region and its main countries and introduces the market development, future development prospects, market space, and production of each country in the world.

Chapter 7: Provides the analysis of various market segments by type, covering the market size and development potential of each market segment, to help readers find the blue ocean market in different market segments.

Chapter 8: Provides the analysis of various market segments by application, covering the market size and development potential of each market segment, to help readers find the blue ocean market in different downstream markets.

Chapter 9: Analysis of industrial chain, including the upstream and downstream of the industry.

Chapter 10: Introduces the market dynamics, latest developments of the market, the driving factors and restrictive factors of the market, the challenges and risks faced by manufacturers in the industry, and the analysis of relevant policies in the industry.

Chapter 11: The main points and conclusions of the report.



## Contents

### 1 PREFACE

- 1.1 Scope of Report
- 1.2 Reasons for Doing This Study
- 1.3 Research Methodology
- 1.4 Research Process
- 1.5 Data Source
  - 1.5.1 Secondary Sources
  - 1.5.2 Primary Sources

### 2 MARKET OVERVIEW

- 2.1 Product Definition
- 2.2 Advanced Phase Change Materials (PCM) by Type
  - 2.2.1 Market Value Comparison by Type (2019 VS 2023 VS 2030) & (US\$ Million)
  - 2.2.2 Organic
  - 2.2.3 Inorganic
  - 2.2.4 Bio-Based
- 2.3 Advanced Phase Change Materials (PCM) by Application
  - 2.3.1 Market Value Comparison by Application (2019 VS 2023 VS 2030) & (US\$ Million)
  - 2.3.2 Building & Construction
  - 2.3.3 Refrigeration
  - 2.3.4 Consumer Goods
  - 2.3.5 Others
- 2.4 Global Market Growth Prospects
  - 2.4.1 Global Advanced Phase Change Materials (PCM) Production Value Estimates and Forecasts (2019-2030)
  - 2.4.2 Global Advanced Phase Change Materials (PCM) Production Capacity Estimates and Forecasts (2019-2030)
  - 2.4.3 Global Advanced Phase Change Materials (PCM) Production Estimates and Forecasts (2019-2030)
  - 2.4.4 Global Advanced Phase Change Materials (PCM) Market Average Price (2019-2030)

### 3 MARKET COMPETITIVE LANDSCAPE BY MANUFACTURERS

3.1 Global Advanced Phase Change Materials (PCM) Production by Manufacturers (2019-2024)

3.2 Global Advanced Phase Change Materials (PCM) Production Value by Manufacturers (2019-2024)

3.3 Global Advanced Phase Change Materials (PCM) Average Price by Manufacturers (2019-2024)

3.4 Global Advanced Phase Change Materials (PCM) Industry Manufacturers Ranking, 2022 VS 2023 VS 2024

3.5 Global Advanced Phase Change Materials (PCM) Key Manufacturers, Manufacturing Sites & Headquarters

3.6 Global Advanced Phase Change Materials (PCM) Manufacturers, Product Type & Application

3.7 Global Advanced Phase Change Materials (PCM) Manufacturers, Date of Enter into This Industry

3.8 Global Advanced Phase Change Materials (PCM) Market CR5 and HHI

3.9 Global Manufacturers Mergers & Acquisition

## **4 MANUFACTURERS PROFILED**

### **4.1 BASF**

4.1.1 BASF Advanced Phase Change Materials (PCM) Company Information

4.1.2 BASF Advanced Phase Change Materials (PCM) Business Overview

4.1.3 BASF Advanced Phase Change Materials (PCM) Production Capacity, Value and Gross Margin (2019-2024)

4.1.4 BASF Product Portfolio

4.1.5 BASF Recent Developments

### **4.2 Honeywell**

4.2.1 Honeywell Advanced Phase Change Materials (PCM) Company Information

4.2.2 Honeywell Advanced Phase Change Materials (PCM) Business Overview

4.2.3 Honeywell Advanced Phase Change Materials (PCM) Production Capacity, Value and Gross Margin (2019-2024)

4.2.4 Honeywell Product Portfolio

4.2.5 Honeywell Recent Developments

### **4.3 Cryopak**

4.3.1 Cryopak Advanced Phase Change Materials (PCM) Company Information

4.3.2 Cryopak Advanced Phase Change Materials (PCM) Business Overview

4.3.3 Cryopak Advanced Phase Change Materials (PCM) Production Capacity, Value and Gross Margin (2019-2024)

4.3.4 Cryopak Product Portfolio

- 4.3.5 Cryopak Recent Developments
- 4.4 Entropy Solutions Inc.
  - 4.4.1 Entropy Solutions Inc. Advanced Phase Change Materials (PCM) Company Information
  - 4.4.2 Entropy Solutions Inc. Advanced Phase Change Materials (PCM) Business Overview
  - 4.4.3 Entropy Solutions Inc. Advanced Phase Change Materials (PCM) Production Capacity, Value and Gross Margin (2019-2024)
  - 4.4.4 Entropy Solutions Inc. Product Portfolio
  - 4.4.5 Entropy Solutions Inc. Recent Developments
- 4.5 Climator Sweden AB
  - 4.5.1 Climator Sweden AB Advanced Phase Change Materials (PCM) Company Information
  - 4.5.2 Climator Sweden AB Advanced Phase Change Materials (PCM) Business Overview
  - 4.5.3 Climator Sweden AB Advanced Phase Change Materials (PCM) Production Capacity, Value and Gross Margin (2019-2024)
  - 4.5.4 Climator Sweden AB Product Portfolio
  - 4.5.5 Climator Sweden AB Recent Developments
- 4.6 Phase Change Energy Solutions
  - 4.6.1 Phase Change Energy Solutions Advanced Phase Change Materials (PCM) Company Information
  - 4.6.2 Phase Change Energy Solutions Advanced Phase Change Materials (PCM) Business Overview
  - 4.6.3 Phase Change Energy Solutions Advanced Phase Change Materials (PCM) Production Capacity, Value and Gross Margin (2019-2024)
  - 4.6.4 Phase Change Energy Solutions Product Portfolio
  - 4.6.5 Phase Change Energy Solutions Recent Developments
- 4.7 Outlast Technologies
  - 4.7.1 Outlast Technologies Advanced Phase Change Materials (PCM) Company Information
  - 4.7.2 Outlast Technologies Advanced Phase Change Materials (PCM) Business Overview
  - 4.7.3 Outlast Technologies Advanced Phase Change Materials (PCM) Production Capacity, Value and Gross Margin (2019-2024)
  - 4.7.4 Outlast Technologies Product Portfolio
  - 4.7.5 Outlast Technologies Recent Developments
- 4.8 Dow Building Solutions
  - 4.8.1 Dow Building Solutions Advanced Phase Change Materials (PCM) Company

## Information

4.8.2 Dow Building Solutions Advanced Phase Change Materials (PCM) Business Overview

4.8.3 Dow Building Solutions Advanced Phase Change Materials (PCM) Production Capacity, Value and Gross Margin (2019-2024)

4.8.4 Dow Building Solutions Product Portfolio

4.8.5 Dow Building Solutions Recent Developments

## 4.9 Chemours Company

4.9.1 Chemours Company Advanced Phase Change Materials (PCM) Company Information

4.9.2 Chemours Company Advanced Phase Change Materials (PCM) Business Overview

4.9.3 Chemours Company Advanced Phase Change Materials (PCM) Production Capacity, Value and Gross Margin (2019-2024)

4.9.4 Chemours Company Product Portfolio

4.9.5 Chemours Company Recent Developments

## 4.10 PCM Energy Ltd

4.10.1 PCM Energy Ltd Advanced Phase Change Materials (PCM) Company Information

4.10.2 PCM Energy Ltd Advanced Phase Change Materials (PCM) Business Overview

4.10.3 PCM Energy Ltd Advanced Phase Change Materials (PCM) Production Capacity, Value and Gross Margin (2019-2024)

4.10.4 PCM Energy Ltd Product Portfolio

4.10.5 PCM Energy Ltd Recent Developments

## 4.11 Rubitherm Technologies GmbH

4.11.1 Rubitherm Technologies GmbH Advanced Phase Change Materials (PCM) Company Information

4.11.2 Rubitherm Technologies GmbH Advanced Phase Change Materials (PCM) Business Overview

4.11.3 Rubitherm Technologies GmbH Advanced Phase Change Materials (PCM) Production Capacity, Value and Gross Margin (2019-2024)

4.11.4 Rubitherm Technologies GmbH Product Portfolio

4.11.5 Rubitherm Technologies GmbH Recent Developments

## **5 GLOBAL ADVANCED PHASE CHANGE MATERIALS (PCM) PRODUCTION BY REGION**

5.1 Global Advanced Phase Change Materials (PCM) Production Estimates and Forecasts by Region: 2019 VS 2023 VS 2030

## 5.2 Global Advanced Phase Change Materials (PCM) Production by Region: 2019-2030

5.2.1 Global Advanced Phase Change Materials (PCM) Production by Region: 2019-2024

5.2.2 Global Advanced Phase Change Materials (PCM) Production Forecast by Region (2025-2030)

5.3 Global Advanced Phase Change Materials (PCM) Production Value Estimates and Forecasts by Region: 2019 VS 2023 VS 2030

5.4 Global Advanced Phase Change Materials (PCM) Production Value by Region: 2019-2030

5.4.1 Global Advanced Phase Change Materials (PCM) Production Value by Region: 2019-2024

5.4.2 Global Advanced Phase Change Materials (PCM) Production Value Forecast by Region (2025-2030)

5.5 Global Advanced Phase Change Materials (PCM) Market Price Analysis by Region (2019-2024)

5.6 Global Advanced Phase Change Materials (PCM) Production and Value, YOY Growth

5.6.1 North America Advanced Phase Change Materials (PCM) Production Value Estimates and Forecasts (2019-2030)

5.6.2 Europe Advanced Phase Change Materials (PCM) Production Value Estimates and Forecasts (2019-2030)

5.6.3 China Advanced Phase Change Materials (PCM) Production Value Estimates and Forecasts (2019-2030)

5.6.4 Japan Advanced Phase Change Materials (PCM) Production Value Estimates and Forecasts (2019-2030)

5.6.5 India Advanced Phase Change Materials (PCM) Production Value Estimates and Forecasts (2019-2030)

## **6 GLOBAL ADVANCED PHASE CHANGE MATERIALS (PCM) CONSUMPTION BY REGION**

6.1 Global Advanced Phase Change Materials (PCM) Consumption Estimates and Forecasts by Region: 2019 VS 2023 VS 2030

6.2 Global Advanced Phase Change Materials (PCM) Consumption by Region (2019-2030)

6.2.1 Global Advanced Phase Change Materials (PCM) Consumption by Region: 2019-2030

6.2.2 Global Advanced Phase Change Materials (PCM) Forecasted Consumption by Region (2025-2030)

## 6.3 North America

6.3.1 North America Advanced Phase Change Materials (PCM) Consumption Growth Rate by Country: 2019 VS 2023 VS 2030

6.3.2 North America Advanced Phase Change Materials (PCM) Consumption by Country (2019-2030)

6.3.3 U.S.

6.3.4 Canada

## 6.4 Europe

6.4.1 Europe Advanced Phase Change Materials (PCM) Consumption Growth Rate by Country: 2019 VS 2023 VS 2030

6.4.2 Europe Advanced Phase Change Materials (PCM) Consumption by Country (2019-2030)

6.4.3 Germany

6.4.4 France

6.4.5 U.K.

6.4.6 Italy

6.4.7 Russia

## 6.5 Asia Pacific

6.5.1 Asia Pacific Advanced Phase Change Materials (PCM) Consumption Growth Rate by Country: 2019 VS 2023 VS 2030

6.5.2 Asia Pacific Advanced Phase Change Materials (PCM) Consumption by Country (2019-2030)

6.5.3 China

6.5.4 Japan

6.5.5 South Korea

6.5.6 China Taiwan

6.5.7 Southeast Asia

6.5.8 India

6.5.9 Australia

## 6.6 Latin America, Middle East & Africa

6.6.1 Latin America, Middle East & Africa Advanced Phase Change Materials (PCM) Consumption Growth Rate by Country: 2019 VS 2023 VS 2030

6.6.2 Latin America, Middle East & Africa Advanced Phase Change Materials (PCM) Consumption by Country (2019-2030)

6.6.3 Mexico

6.6.4 Brazil

6.6.5 Turkey

6.6.5 GCC Countries



## **7 SEGMENT BY TYPE**

### 7.1 Global Advanced Phase Change Materials (PCM) Production by Type (2019-2030)

7.1.1 Global Advanced Phase Change Materials (PCM) Production by Type (2019-2030) & (MT)

7.1.2 Global Advanced Phase Change Materials (PCM) Production Market Share by Type (2019-2030)

### 7.2 Global Advanced Phase Change Materials (PCM) Production Value by Type (2019-2030)

7.2.1 Global Advanced Phase Change Materials (PCM) Production Value by Type (2019-2030) & (US\$ Million)

7.2.2 Global Advanced Phase Change Materials (PCM) Production Value Market Share by Type (2019-2030)

### 7.3 Global Advanced Phase Change Materials (PCM) Price by Type (2019-2030)

## **8 SEGMENT BY APPLICATION**

### 8.1 Global Advanced Phase Change Materials (PCM) Production by Application (2019-2030)

8.1.1 Global Advanced Phase Change Materials (PCM) Production by Application (2019-2030) & (MT)

8.1.2 Global Advanced Phase Change Materials (PCM) Production by Application (2019-2030) & (MT)

### 8.2 Global Advanced Phase Change Materials (PCM) Production Value by Application (2019-2030)

8.2.1 Global Advanced Phase Change Materials (PCM) Production Value by Application (2019-2030) & (US\$ Million)

8.2.2 Global Advanced Phase Change Materials (PCM) Production Value Market Share by Application (2019-2030)

### 8.3 Global Advanced Phase Change Materials (PCM) Price by Application (2019-2030)

## **9 VALUE CHAIN AND SALES CHANNELS ANALYSIS OF THE MARKET**

### 9.1 Advanced Phase Change Materials (PCM) Value Chain Analysis

9.1.1 Advanced Phase Change Materials (PCM) Key Raw Materials

9.1.2 Raw Materials Key Suppliers

9.1.3 Advanced Phase Change Materials (PCM) Production Mode & Process

### 9.2 Advanced Phase Change Materials (PCM) Sales Channels Analysis

9.2.1 Direct Comparison with Distribution Share

9.2.2 Advanced Phase Change Materials (PCM) Distributors

9.2.3 Advanced Phase Change Materials (PCM) Customers

## **10 GLOBAL ADVANCED PHASE CHANGE MATERIALS (PCM) ANALYZING MARKET DYNAMICS**

10.1 Advanced Phase Change Materials (PCM) Industry Trends

10.2 Advanced Phase Change Materials (PCM) Industry Drivers

10.3 Advanced Phase Change Materials (PCM) Industry Opportunities and Challenges

10.4 Advanced Phase Change Materials (PCM) Industry Restraints

## **11 REPORT CONCLUSION**

## **12 DISCLAIMER**



## List Of Tables

### LIST OF TABLES

Table 1. Secondary Sources

Table 2. Primary Sources

Table 3. Market Value Comparison by Type (2019 VS 2023 VS 2030) & (US\$ Million)

Table 4. Market Value Comparison by Application (2019 VS 2023 VS 2030) & (US\$ Million)

Table 5. Global Advanced Phase Change Materials (PCM) Production by Manufacturers (MT) & (2019-2024)

Table 6. Global Advanced Phase Change Materials (PCM) Production Market Share by Manufacturers

Table 7. Global Advanced Phase Change Materials (PCM) Production Value by Manufacturers (US\$ Million) & (2019-2024)

Table 8. Global Advanced Phase Change Materials (PCM) Production Value Market Share by Manufacturers (2019-2024)

Table 9. Global Advanced Phase Change Materials (PCM) Average Price (USD/MT) of Key Manufacturers (2019-2024)

Table 10. Global Advanced Phase Change Materials (PCM) Industry Manufacturers Ranking, 2022 VS 2023 VS 2024

Table 11. Global Advanced Phase Change Materials (PCM) Manufacturers, Product Type & Application

Table 12. Global Manufacturers Market Concentration Ratio (CR5 and HHI)

Table 13. Global Advanced Phase Change Materials (PCM) by Manufacturers Type (Tier 1, Tier 2, and Tier 3) & (based on the Production Value of 2023)

Table 14. Manufacturers Mergers & Acquisitions, Expansion Plans)

Table 15. BASF Advanced Phase Change Materials (PCM) Company Information

Table 16. BASF Business Overview

Table 17. BASF Advanced Phase Change Materials (PCM) Production Capacity (MT), Value (US\$ Million), Price (USD/MT) and Gross Margin (2019-2024)

Table 18. BASF Product Portfolio

Table 19. BASF Recent Developments

Table 20. Honeywell Advanced Phase Change Materials (PCM) Company Information

Table 21. Honeywell Business Overview

Table 22. Honeywell Advanced Phase Change Materials (PCM) Production Capacity (MT), Value (US\$ Million), Price (USD/MT) and Gross Margin (2019-2024)

Table 23. Honeywell Product Portfolio

Table 24. Honeywell Recent Developments

Table 25. Cryopak Advanced Phase Change Materials (PCM) Company Information

Table 26. Cryopak Business Overview

Table 27. Cryopak Advanced Phase Change Materials (PCM) Production Capacity (MT), Value (US\$ Million), Price (USD/MT) and Gross Margin (2019-2024)

Table 28. Cryopak Product Portfolio

Table 29. Cryopak Recent Developments

Table 30. Entropy Solutions Inc. Advanced Phase Change Materials (PCM) Company Information

Table 31. Entropy Solutions Inc. Business Overview

Table 32. Entropy Solutions Inc. Advanced Phase Change Materials (PCM) Production Capacity (MT), Value (US\$ Million), Price (USD/MT) and Gross Margin (2019-2024)

Table 33. Entropy Solutions Inc. Product Portfolio

Table 34. Entropy Solutions Inc. Recent Developments

Table 35. Climator Sweden AB Advanced Phase Change Materials (PCM) Company Information

Table 36. Climator Sweden AB Business Overview

Table 37. Climator Sweden AB Advanced Phase Change Materials (PCM) Production Capacity (MT), Value (US\$ Million), Price (USD/MT) and Gross Margin (2019-2024)

Table 38. Climator Sweden AB Product Portfolio

Table 39. Climator Sweden AB Recent Developments

Table 40. Phase Change Energy Solutions Advanced Phase Change Materials (PCM) Company Information

Table 41. Phase Change Energy Solutions Business Overview

Table 42. Phase Change Energy Solutions Advanced Phase Change Materials (PCM) Production Capacity (MT), Value (US\$ Million), Price (USD/MT) and Gross Margin (2019-2024)

Table 43. Phase Change Energy Solutions Product Portfolio

Table 44. Phase Change Energy Solutions Recent Developments

Table 45. Outlast Technologies Advanced Phase Change Materials (PCM) Company Information

Table 46. Outlast Technologies Business Overview

Table 47. Outlast Technologies Advanced Phase Change Materials (PCM) Production Capacity (MT), Value (US\$ Million), Price (USD/MT) and Gross Margin (2019-2024)

Table 48. Outlast Technologies Product Portfolio

Table 49. Outlast Technologies Recent Developments

Table 50. Dow Building Solutions Advanced Phase Change Materials (PCM) Company Information

Table 51. Dow Building Solutions Business Overview

Table 52. Dow Building Solutions Advanced Phase Change Materials (PCM) Production

Capacity (MT), Value (US\$ Million), Price (USD/MT) and Gross Margin (2019-2024)

Table 53. Dow Building Solutions Product Portfolio

Table 54. Dow Building Solutions Recent Developments

Table 55. Chemours Company Advanced Phase Change Materials (PCM) Company Information

Table 56. Chemours Company Business Overview

Table 57. Chemours Company Advanced Phase Change Materials (PCM) Production Capacity (MT), Value (US\$ Million), Price (USD/MT) and Gross Margin (2019-2024)

Table 58. Chemours Company Product Portfolio

Table 59. Chemours Company Recent Developments

Table 60. PCM Energy Ltd Advanced Phase Change Materials (PCM) Company Information

Table 61. PCM Energy Ltd Business Overview

Table 62. PCM Energy Ltd Advanced Phase Change Materials (PCM) Production Capacity (MT), Value (US\$ Million), Price (USD/MT) and Gross Margin (2019-2024)

Table 63. PCM Energy Ltd Product Portfolio

Table 64. PCM Energy Ltd Recent Developments

Table 65. Rubitherm Technologies GmbH Advanced Phase Change Materials (PCM) Company Information

Table 66. Rubitherm Technologies GmbH Business Overview

Table 67. Rubitherm Technologies GmbH Advanced Phase Change Materials (PCM) Production Capacity (MT), Value (US\$ Million), Price (USD/MT) and Gross Margin (2019-2024)

Table 68. Rubitherm Technologies GmbH Product Portfolio

Table 69. Rubitherm Technologies GmbH Recent Developments

Table 70. Global Advanced Phase Change Materials (PCM) Production Comparison by Region: 2019 VS 2023 VS 2030 (MT)

Table 71. Global Advanced Phase Change Materials (PCM) Production by Region (2019-2024) & (MT)

Table 72. Global Advanced Phase Change Materials (PCM) Production Market Share by Region (2019-2024)

Table 73. Global Advanced Phase Change Materials (PCM) Production Forecast by Region (2025-2030) & (MT)

Table 74. Global Advanced Phase Change Materials (PCM) Production Market Share Forecast by Region (2025-2030)

Table 75. Global Advanced Phase Change Materials (PCM) Production Value Comparison by Region: 2019 VS 2023 VS 2030 (US\$ Million)

Table 76. Global Advanced Phase Change Materials (PCM) Production Value by Region (2019-2024) & (US\$ Million)

Table 77. Global Advanced Phase Change Materials (PCM) Production Value Market Share by Region (2019-2024)

Table 78. Global Advanced Phase Change Materials (PCM) Production Value Forecast by Region (2025-2030) & (US\$ Million)

Table 79. Global Advanced Phase Change Materials (PCM) Production Value Market Share Forecast by Region (2025-2030)

Table 80. Global Advanced Phase Change Materials (PCM) Market Average Price (USD/MT) by Region (2019-2024)

Table 81. Global Advanced Phase Change Materials (PCM) Consumption Comparison by Region: 2019 VS 2023 VS 2030 (MT)

Table 82. Global Advanced Phase Change Materials (PCM) Consumption by Region (2019-2024) & (MT)

Table 83. Global Advanced Phase Change Materials (PCM) Consumption Market Share by Region (2019-2024)

Table 84. Global Advanced Phase Change Materials (PCM) Forecasted Consumption by Region (2025-2030) & (MT)

Table 85. Global Advanced Phase Change Materials (PCM) Forecasted Consumption Market Share by Region (2025-2030)

Table 86. North America Advanced Phase Change Materials (PCM) Consumption Growth Rate by Country: 2019 VS 2023 VS 2030 (MT)

Table 87. North America Advanced Phase Change Materials (PCM) Consumption by Country (2019-2024) & (MT)

Table 88. North America Advanced Phase Change Materials (PCM) Consumption by Country (2025-2030) & (MT)

Table 89. Europe Advanced Phase Change Materials (PCM) Consumption Growth Rate by Country: 2019 VS 2023 VS 2030 (MT)

Table 90. Europe Advanced Phase Change Materials (PCM) Consumption by Country (2019-2024) & (MT)

Table 91. Europe Advanced Phase Change Materials (PCM) Consumption by Country (2025-2030) & (MT)

Table 92. Asia Pacific Advanced Phase Change Materials (PCM) Consumption Growth Rate by Country: 2019 VS 2023 VS 2030 (MT)

Table 93. Asia Pacific Advanced Phase Change Materials (PCM) Consumption by Country (2019-2024) & (MT)

Table 94. Asia Pacific Advanced Phase Change Materials (PCM) Consumption by Country (2025-2030) & (MT)

Table 95. Latin America, Middle East & Africa Advanced Phase Change Materials (PCM) Consumption Growth Rate by Country: 2019 VS 2023 VS 2030 (MT)

Table 96. Latin America, Middle East & Africa Advanced Phase Change Materials

(PCM) Consumption by Country (2019-2024) & (MT)

Table 97. Latin America, Middle East & Africa Advanced Phase Change Materials

(PCM) Consumption by Country (2025-2030) & (MT)

Table 98. Global Advanced Phase Change Materials (PCM) Production by Type (2019-2024) & (MT)

Table 99. Global Advanced Phase Change Materials (PCM) Production by Type (2025-2030) & (MT)

Table 100. Global Advanced Phase Change Materials (PCM) Production Market Share by Type (2019-2024)

Table 101. Global Advanced Phase Change Materials (PCM) Production Market Share by Type (2025-2030)

Table 102. Global Advanced Phase Change Materials (PCM) Production Value by Type (2019-2024) & (US\$ Million)

Table 103. Global Advanced Phase Change Materials (PCM) Production Value by Type (2025-2030) & (US\$ Million)

Table 104. Global Advanced Phase Change Materials (PCM) Production Value Market Share by Type (2019-2024)

Table 105. Global Advanced Phase Change Materials (PCM) Production Value Market Share by Type (2025-2030)

Table 106. Global Advanced Phase Change Materials (PCM) Price by Type (2019-2024) & (USD/MT)

Table 107. Global Advanced Phase Change Materials (PCM) Price by Type (2025-2030) & (USD/MT)

Table 108. Global Advanced Phase Change Materials (PCM) Production by Application (2019-2024) & (MT)

Table 109. Global Advanced Phase Change Materials (PCM) Production by Application (2025-2030) & (MT)

Table 110. Global Advanced Phase Change Materials (PCM) Production Market Share by Application (2019-2024)

Table 111. Global Advanced Phase Change Materials (PCM) Production Market Share by Application (2025-2030)

Table 112. Global Advanced Phase Change Materials (PCM) Production Value by Application (2019-2024) & (US\$ Million)

Table 113. Global Advanced Phase Change Materials (PCM) Production Value by Application (2025-2030) & (US\$ Million)

Table 114. Global Advanced Phase Change Materials (PCM) Production Value Market Share by Application (2019-2024)

Table 115. Global Advanced Phase Change Materials (PCM) Production Value Market Share by Application (2025-2030)



Table 116. Global Advanced Phase Change Materials (PCM) Price by Application (2019-2024) & (USD/MT)

Table 117. Global Advanced Phase Change Materials (PCM) Price by Application (2025-2030) & (USD/MT)

Table 118. Key Raw Materials

Table 119. Raw Materials Key Suppliers

Table 120. Advanced Phase Change Materials (PCM) Distributors List

Table 121. Advanced Phase Change Materials (PCM) Customers List

Table 122. Advanced Phase Change Materials (PCM) Industry Trends

Table 123. Advanced Phase Change Materials (PCM) Industry Drivers

Table 124. Advanced Phase Change Materials (PCM) Industry Restraints

Table 125. Authors List of This Report

## List Of Figures

### LIST OF FIGURES

Figure 1. Research Methodology

Figure 2. Research Process

Figure 3. Key Executives Interviewed

Figure 4. Advanced Phase Change Materials (PCM) Product Picture

Figure 5. Market Value Comparison by Type (2019 VS 2023 VS 2030) & (US\$ Million)

Figure 6. Organic Product Picture

Figure 7. Inorganic Product Picture

Figure 8. Bio-Based Product Picture

Figure 9. Building & Construction Product Picture

Figure 10. Refrigeration Product Picture

Figure 11. Consumer Goods Product Picture

Figure 12. Others Product Picture

Figure 13. Global Advanced Phase Change Materials (PCM) Production Value (US\$ Million), 2019 VS 2023 VS 2030

Figure 14. Global Advanced Phase Change Materials (PCM) Production Value (2019-2030) & (US\$ Million)

Figure 15. Global Advanced Phase Change Materials (PCM) Production Capacity (2019-2030) & (MT)

Figure 16. Global Advanced Phase Change Materials (PCM) Production (2019-2030) & (MT)

Figure 17. Global Advanced Phase Change Materials (PCM) Average Price (USD/MT) & (2019-2030)

Figure 18. Global Advanced Phase Change Materials (PCM) Key Manufacturers, Manufacturing Sites & Headquarters

Figure 19. Global Advanced Phase Change Materials (PCM) Manufacturers, Date of Enter into This Industry

Figure 20. Global Top 5 and 10 Advanced Phase Change Materials (PCM) Players Market Share by Production Value in 2023

Figure 21. Manufacturers Type (Tier 1, Tier 2, and Tier 3): 2019 VS 2023

Figure 22. Global Advanced Phase Change Materials (PCM) Production Comparison by Region: 2019 VS 2023 VS 2030 (MT)

Figure 23. Global Advanced Phase Change Materials (PCM) Production Market Share by Region: 2019 VS 2023 VS 2030

Figure 24. Global Advanced Phase Change Materials (PCM) Production Value Comparison by Region: 2019 VS 2023 VS 2030 (US\$ Million)

Figure 25. Global Advanced Phase Change Materials (PCM) Production Value Market Share by Region: 2019 VS 2023 VS 2030

Figure 26. North America Advanced Phase Change Materials (PCM) Production Value (US\$ Million) Growth Rate (2019-2030)

Figure 27. Europe Advanced Phase Change Materials (PCM) Production Value (US\$ Million) Growth Rate (2019-2030)

Figure 28. China Advanced Phase Change Materials (PCM) Production Value (US\$ Million) Growth Rate (2019-2030)

Figure 29. Japan Advanced Phase Change Materials (PCM) Production Value (US\$ Million) Growth Rate (2019-2030)

Figure 30. India Advanced Phase Change Materials (PCM) Production Value (US\$ Million) Growth Rate (2019-2030)

Figure 31. Global Advanced Phase Change Materials (PCM) Consumption Comparison by Region: 2019 VS 2023 VS 2030 (MT)

Figure 32. Global Advanced Phase Change Materials (PCM) Consumption Market Share by Region: 2019 VS 2023 VS 2030

Figure 33. North America Advanced Phase Change Materials (PCM) Consumption and Growth Rate (2019-2030) & (MT)

Figure 34. North America Advanced Phase Change Materials (PCM) Consumption Market Share by Country (2019-2030)

Figure 35. United States Advanced Phase Change Materials (PCM) Consumption and Growth Rate (2019-2030) & (MT)

Figure 36. Canada Advanced Phase Change Materials (PCM) Consumption and Growth Rate (2019-2030) & (MT)

Figure 37. Europe Advanced Phase Change Materials (PCM) Consumption and Growth Rate (2019-2030) & (MT)

Figure 38. Europe Advanced Phase Change Materials (PCM) Consumption Market Share by Country (2019-2030)

Figure 39. Germany Advanced Phase Change Materials (PCM) Consumption and Growth Rate (2019-2030) & (MT)

Figure 40. France Advanced Phase Change Materials (PCM) Consumption and Growth Rate (2019-2030) & (MT)

Figure 41. U.K. Advanced Phase Change Materials (PCM) Consumption and Growth Rate (2019-2030) & (MT)

Figure 42. Italy Advanced Phase Change Materials (PCM) Consumption and Growth Rate (2019-2030) & (MT)

Figure 43. Netherlands Advanced Phase Change Materials (PCM) Consumption and Growth Rate (2019-2030) & (MT)

Figure 44. Asia Pacific Advanced Phase Change Materials (PCM) Consumption and



Growth Rate (2019-2030) & (MT)

Figure 45. Asia Pacific Advanced Phase Change Materials (PCM) Consumption Market Share by Country (2019-2030)

Figure 46. China Advanced Phase Change Materials (PCM) Consumption and Growth Rate (2019-2030) & (MT)

Figure 47. Japan Advanced Phase Change Materials (PCM) Consumption and Growth Rate (2019-2030) & (MT)

Figure 48. South Korea Advanced Phase Change Materials (PCM) Consumption and Growth Rate (2019-2030) & (MT)

Figure 49. China Taiwan Advanced Phase Change Materials (PCM) Consumption and Growth Rate (2019-2030) & (MT)

Figure 50. Southeast Asia Advanced Phase Change Materials (PCM) Consumption and Growth Rate (2019-2030) & (MT)

Figure 51. India Advanced Phase Change Materials (PCM) Consumption and Growth Rate (2019-2030) & (MT)

Figure 52. Australia Advanced Phase Change Materials (PCM) Consumption and Growth Rate (2019-2030) & (MT)

Figure 53. Latin America, Middle East & Africa Advanced Phase Change Materials (PCM) Consumption and Growth Rate (2019-2030) & (MT)

Figure 54. Latin America, Middle East & Africa Advanced Phase Change Materials (PCM) Consumption Market Share by Country (2019-2030)

Figure 55. Mexico Advanced Phase Change Materials (PCM) Consumption and Growth Rate (2019-2030) & (MT)

Figure 56. Brazil Advanced Phase Change Materials (PCM) Consumption and Growth Rate (2019-2030) & (MT)

Figure 57. Turkey Advanced Phase Change Materials (PCM) Consumption and Growth Rate (2019-2030) & (MT)

Figure 58. GCC Countries Advanced Phase Change Materials (PCM) Consumption and Growth Rate (2019-2030) & (MT)

Figure 59. Global Advanced Phase Change Materials (PCM) Production Market Share by Type (2019-2030)

Figure 60. Global Advanced Phase Change Materials (PCM) Production Value Market Share by Type (2019-2030)

Figure 61. Global Advanced Phase Change Materials (PCM) Price (USD/MT) by Type (2019-2030)

Figure 62. Global Advanced Phase Change Materials (PCM) Production Market Share by Application (2019-2030)

Figure 63. Global Advanced Phase Change Materials (PCM) Production Value Market Share by Application (2019-2030)

Figure 64. Global Advanced Phase Change Materials (PCM) Price (USD/MT) by Application (2019-2030)

Figure 65. Advanced Phase Change Materials (PCM) Value Chain

Figure 66. Advanced Phase Change Materials (PCM) Production Mode & Process

Figure 67. Direct Comparison with Distribution Share

Figure 68. Distributors Profiles

Figure 69. Advanced Phase Change Materials (PCM) Industry Opportunities and Challenges

## I would like to order

Product name: Advanced Phase Change Materials (PCM) Industry Research Report 2024

Product link: <https://marketpublishers.com/r/A9CC9AC79446EN.html>

Price: US\$ 2,950.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/A9CC9AC79446EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:  
Last name:  
Email:  
Company:  
Address:  
City:  
Zip code:  
Country:  
Tel:  
Fax:  
Your message:

**\*\*All fields are required**

Customer signature \_\_\_\_\_

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970