

Vacuum Insulation Panels Market Forecasts to 2032 – Global Analysis By Core Material (Fiber-based, Fumed Silica, Open-Cell Foam and Other Core Materials), Barrier Film Material (Plastics, Metals and Other Barrier Film Materials), Panel Shape, Application and By Geography

<https://marketpublishers.com/r/V94D1F979CF3EN.html>

Date: July 2025

Pages: 150

Price: US\$ 4,150.00 (Single User License)

ID: V94D1F979CF3EN

Abstracts

According to Statistics MRC, the Global Vacuum Insulation Panels Market is accounted for \$9.1 billion in 2025 and is expected to reach \$13.5 billion by 2032 growing at a CAGR of 5.7% during the forecast period. Vacuum insulation panels (VIPs) are high-performance thermal insulators made by enclosing a rigid core material within a gas-tight envelope, from which air is evacuated to create a vacuum. This vacuum significantly reduces heat transfer, offering superior insulation compared to conventional materials. VIPs are widely used in applications where space efficiency and thermal performance are critical, such as refrigeration, construction, and cold chain logistics.

According to data from the U.S. Department of Energy, integrating vacuum-insulation panels (VIPs) in retrofit wall panels can slash energy use intensity by as much as 67.4%, while achieving the same R-value (R-44 to R-47) with a panel that's 66% thinner (4' vs. 12') compared to conventional insulation.

Market Dynamics:

Driver:

Rapid growth in construction and HVAC demand

The vacuum insulation panels market is strongly propelled by the rapid expansion of the construction sector and rising demand for HVAC systems. As urbanization accelerates and energy efficiency becomes a top priority, builders and developers increasingly adopt vacuum insulation panels for their superior thermal performance. Furthermore, stringent building codes and regulations worldwide mandate higher energy efficiency standards, fostering the adoption of these advanced insulation solutions in both residential and commercial projects, thereby driving robust market growth.

Restraint:

Volatile raw material pricing

The production of these panels relies on materials such as metals, plastics, and core substances like silica and fiberglass, whose prices are subject to fluctuations due to supply chain disruptions, geopolitical tensions, and changes in global demand. Additionally, these cost variances can lead to increased manufacturing expenses, making it challenging for manufacturers to maintain competitive pricing and potentially hindering market expansion.

Opportunity:

Market expansion in new sectors

Market expansion in new sectors presents a substantial opportunity for the vacuum insulation panels market. Beyond traditional applications in construction and refrigeration, there is growing potential in areas such as cold chain logistics, pharmaceuticals, and high-performance consumer appliances. Moreover, the push for sustainability and advancements in panel technology enable entry into automotive, aerospace, and modular construction, where lightweight and high-efficiency insulation is increasingly valued, opening new revenue streams for manufacturers.

Threat:

Intense competition

The presence of established global players, coupled with the entry of new manufacturers, intensifies price competition and pressures margins. Furthermore, ongoing technological advancements and the development of alternative insulation

materials require companies to continuously innovate and differentiate their offerings, making it challenging to retain market share and sustain profitability in a highly competitive landscape.

Covid-19 Impact:

The COVID-19 pandemic had a multifaceted impact on the vacuum insulation panels market. Global supply chain disruptions and factory closures led to delays and shortages in production and distribution. Construction activity, a major driver for these panels, slowed considerably as projects were postponed or halted. However, demand for vacuum insulation panels in cold chain logistics surged, particularly for pharmaceutical and vaccine transportation, partially offsetting declines in other sectors. The market's recovery is closely tied to the resumption of construction and increased focus on energy efficiency post-pandemic.

The flat panel segment is expected to be the largest during the forecast period

The flat panel segment is expected to account for the largest market share during the forecast period, attributed to the segment's compact size, high thermal resistance, and ease of integration into various applications, including building construction, refrigeration, and transportation. Additionally, flat panels offer superior insulation performance in limited spaces, making them highly desirable for energy-efficient buildings and appliances. Their versatility and widespread applicability ensure continued demand and market leadership.

The metals segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the metals segment is predicted to witness the highest growth rate. Metal-based vacuum insulation panels are increasingly favored for their durability, structural strength, and exceptional insulation properties, particularly in demanding environments such as refrigerated containers, vans, and warehouses. Furthermore, the expansion of the construction industry, especially in emerging economies, and the need for robust insulation solutions in logistics and cold storage are driving the rapid adoption and growth of the metals segment.

Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market share, driven by rapid urbanization, industrialization, and substantial investments in

infrastructure and construction across countries like China, India, and Japan. Additionally, the growing demand for energy-efficient buildings, increased adoption of refrigeration systems in the food and beverage industry, and supportive government policies promoting green construction further bolster the region's dominance.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR. The region's impressive growth is fueled by rising energy efficiency regulations, expanding automotive and refrigeration industries, and the ongoing adoption of advanced insulation solutions. Moreover, the increasing focus on sustainability, coupled with significant investments in smart cities and infrastructure development, positions Asia Pacific as the fastest-growing market for vacuum insulation panels globally.

Key players in the market

Some of the key players in Vacuum Insulation Panels Market include Evonik Industries AG, LG Hausys Ltd., Panasonic Corporation, Dow Inc., OCI Company Ltd., Kevothermal, LLC, Porextherm Dammstoffe GmbH, ThermoCor Insulation Systems, Va-Q-Tec AG, Microtherm Sentronic GmbH, Kingspan Group plc, Knauf Insulation GmbH, Saint-Gobain, Etex Group, Morgan Advanced Materials PLC, Fujian SuperTech Advanced Material Co., Ltd., Thermal Visions, and Vacutherm Ltd.

Key Developments:

In February 2025, Panasonic has successfully developed the Vacua series, described as the fifth generation of vacuum insulation panels after years of research and development. The latest generation insulation panel features advanced energy-saving capabilities, environmental protection, high efficiency, and low thermal conductivity with heat insulation that is 20 times better than polyurethane foam.

In January 2025, Evonik launched "Smart Effects", a new business line combining its silica and silanes divisions. VIPs are listed as one of the highlighted applications under this streamlined portfolio, reflecting renewed focus and investment in VIP-related innovation.

Core Materials Covered:

Fiber-based

Fumed Silica

Open-Cell Foam

Other Core Materials

Barrier Film Materials:

Plastics

Metals

Other Barrier Film Materials

Panel Shapes Covered:

Flat Panel

Special Shape Panel

Applications Covered:

Construction

Refrigeration & Appliances

Logistics & Cold Chain Packaging

Automotive

Other Applications

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2024, 2025, 2026, 2028, and 2032
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

Contents

1 EXECUTIVE SUMMARY

2 PREFACE

- 2.1 Abstract
- 2.2 Stake Holders
- 2.3 Research Scope
- 2.4 Research Methodology
 - 2.4.1 Data Mining
 - 2.4.2 Data Analysis
 - 2.4.3 Data Validation
 - 2.4.4 Research Approach
- 2.5 Research Sources
 - 2.5.1 Primary Research Sources
 - 2.5.2 Secondary Research Sources
 - 2.5.3 Assumptions

3 MARKET TREND ANALYSIS

- 3.1 Introduction
- 3.2 Drivers
- 3.3 Restraints
- 3.4 Opportunities
- 3.5 Threats
- 3.6 Application Analysis
- 3.7 Emerging Markets
- 3.8 Impact of Covid-19

4 PORTERS FIVE FORCE ANALYSIS

- 4.1 Bargaining power of suppliers
- 4.2 Bargaining power of buyers
- 4.3 Threat of substitutes
- 4.4 Threat of new entrants
- 4.5 Competitive rivalry

5 GLOBAL VACUUM INSULATION PANELS MARKET, BY CORE MATERIAL

- 5.1 Introduction
- 5.2 Fiber-based
 - 5.2.1 Ceramic Fiber
 - 5.2.2 Glass Fiber
- 5.3 Fumed Silica
 - 5.3.1 Micro-porous Silica
 - 5.3.2 Nano-porous Silica
- 5.4 Open-Cell Foam
 - 5.4.1 Phenolic Foam
 - 5.4.2 Polyurethane Foam
- 5.5 Other Core Materials

6 GLOBAL VACUUM INSULATION PANELS MARKET, BY BARRIER FILM MATERIAL

- 6.1 Introduction
- 6.2 Plastics
- 6.3 Metals
- 6.4 Other Barrier Film Materials

7 GLOBAL VACUUM INSULATION PANELS MARKET, BY PANEL SHAPE

- 7.1 Introduction
- 7.2 Flat Panel
- 7.3 Special Shape Panel
 - 7.3.1 Bag
 - 7.3.2 Box

8 GLOBAL VACUUM INSULATION PANELS MARKET, BY APPLICATION

- 8.1 Introduction
- 8.2 Construction
 - 8.2.1 Commercial Buildings
 - 8.2.2 Industrial Buildings
 - 8.2.3 Residential Buildings
- 8.3 Refrigeration & Appliances
 - 8.3.1 Commercial Refrigeration
 - 8.3.2 Household Appliances

8.4 Logistics & Cold Chain Packaging

- 8.4.1 Electronic Goods Packaging
- 8.4.2 Food & Beverage Packaging
- 8.4.3 Pharmaceutical Packaging

8.5 Automotive

- 8.5.1 Battery Thermal Management
- 8.5.2 Cabin Insulation

8.6 Other Applications

9 GLOBAL VACUUM INSULATION PANELS MARKET, BY GEOGRAPHY

9.1 Introduction

9.2 North America

- 9.2.1 US
- 9.2.2 Canada
- 9.2.3 Mexico

9.3 Europe

- 9.3.1 Germany
- 9.3.2 UK
- 9.3.3 Italy
- 9.3.4 France
- 9.3.5 Spain
- 9.3.6 Rest of Europe

9.4 Asia Pacific

- 9.4.1 Japan
- 9.4.2 China
- 9.4.3 India
- 9.4.4 Australia
- 9.4.5 New Zealand
- 9.4.6 South Korea
- 9.4.7 Rest of Asia Pacific

9.5 South America

- 9.5.1 Argentina
- 9.5.2 Brazil
- 9.5.3 Chile
- 9.5.4 Rest of South America

9.6 Middle East & Africa

- 9.6.1 Saudi Arabia
- 9.6.2 UAE

- 9.6.3 Qatar
- 9.6.4 South Africa
- 9.6.5 Rest of Middle East & Africa

10 KEY DEVELOPMENTS

- 10.1 Agreements, Partnerships, Collaborations and Joint Ventures
- 10.2 Acquisitions & Mergers
- 10.3 New Product Launch
- 10.4 Expansions
- 10.5 Other Key Strategies

11 COMPANY PROFILING

- 11.1 Evonik Industries AG
- 11.2 LG Hausys Ltd.
- 11.3 Panasonic Corporation
- 11.4 Dow Inc.
- 11.5 OCI Company Ltd.
- 11.6 Kevothermal, LLC
- 11.7 Porextherm Dammstoffe GmbH
- 11.8 ThermoCor Insulation Systems
- 11.9 Va-Q-Tec AG
- 11.10 Microtherm Sentronic GmbH
- 11.11 Kingspan Group plc
- 11.12 Knauf Insulation GmbH
- 11.13 Saint-Gobain
- 11.14 Etex Group
- 11.15 Morgan Advanced Materials PLC
- 11.16 Fujian SuperTech Advanced Material Co., Ltd.
- 11.17 Thermal Visions
- 11.18 Vacutherm Ltd.

List Of Tables

LIST OF TABLES

Table 1 Global Vacuum Insulation Panels Market Outlook, By Region (2024-2032) (\$MN)

Table 2 Global Vacuum Insulation Panels Market Outlook, By Core Material (2024-2032) (\$MN)

Table 3 Global Vacuum Insulation Panels Market Outlook, By Fiber-based (2024-2032) (\$MN)

Table 4 Global Vacuum Insulation Panels Market Outlook, By Ceramic Fiber (2024-2032) (\$MN)

Table 5 Global Vacuum Insulation Panels Market Outlook, By Glass Fiber (2024-2032) (\$MN)

Table 6 Global Vacuum Insulation Panels Market Outlook, By Fumed Silica (2024-2032) (\$MN)

Table 7 Global Vacuum Insulation Panels Market Outlook, By Micro-porous Silica (2024-2032) (\$MN)

Table 8 Global Vacuum Insulation Panels Market Outlook, By Nano-porous Silica (2024-2032) (\$MN)

Table 9 Global Vacuum Insulation Panels Market Outlook, By Open-Cell Foam (2024-2032) (\$MN)

Table 10 Global Vacuum Insulation Panels Market Outlook, By Phenolic Foam (2024-2032) (\$MN)

Table 11 Global Vacuum Insulation Panels Market Outlook, By Polyurethane Foam (2024-2032) (\$MN)

Table 12 Global Vacuum Insulation Panels Market Outlook, By Other Core Materials (2024-2032) (\$MN)

Table 13 Global Vacuum Insulation Panels Market Outlook, By Barrier Film Material (2024-2032) (\$MN)

Table 14 Global Vacuum Insulation Panels Market Outlook, By Plastics (2024-2032) (\$MN)

Table 15 Global Vacuum Insulation Panels Market Outlook, By Metals (2024-2032) (\$MN)

Table 16 Global Vacuum Insulation Panels Market Outlook, By Other Barrier Film Materials (2024-2032) (\$MN)

Table 17 Global Vacuum Insulation Panels Market Outlook, By Panel Shape (2024-2032) (\$MN)

Table 18 Global Vacuum Insulation Panels Market Outlook, By Flat Panel (2024-2032)

(\$MN)

Table 19 Global Vacuum Insulation Panels Market Outlook, By Special Shape Panel (2024-2032) (\$MN)

Table 20 Global Vacuum Insulation Panels Market Outlook, By Bag (2024-2032) (\$MN)

Table 21 Global Vacuum Insulation Panels Market Outlook, By Box (2024-2032) (\$MN)

Table 22 Global Vacuum Insulation Panels Market Outlook, By Application (2024-2032) (\$MN)

Table 23 Global Vacuum Insulation Panels Market Outlook, By Construction (2024-2032) (\$MN)

Table 24 Global Vacuum Insulation Panels Market Outlook, By Commercial Buildings (2024-2032) (\$MN)

Table 25 Global Vacuum Insulation Panels Market Outlook, By Industrial Buildings (2024-2032) (\$MN)

Table 26 Global Vacuum Insulation Panels Market Outlook, By Residential Buildings (2024-2032) (\$MN)

Table 27 Global Vacuum Insulation Panels Market Outlook, By Refrigeration & Appliances (2024-2032) (\$MN)

Table 28 Global Vacuum Insulation Panels Market Outlook, By Commercial Refrigeration (2024-2032) (\$MN)

Table 29 Global Vacuum Insulation Panels Market Outlook, By Household Appliances (2024-2032) (\$MN)

Table 30 Global Vacuum Insulation Panels Market Outlook, By Logistics & Cold Chain Packaging (2024-2032) (\$MN)

Table 31 Global Vacuum Insulation Panels Market Outlook, By Electronic Goods Packaging (2024-2032) (\$MN)

Table 32 Global Vacuum Insulation Panels Market Outlook, By Food & Beverage Packaging (2024-2032) (\$MN)

Table 33 Global Vacuum Insulation Panels Market Outlook, By Pharmaceutical Packaging (2024-2032) (\$MN)

Table 34 Global Vacuum Insulation Panels Market Outlook, By Automotive (2024-2032) (\$MN)

Table 35 Global Vacuum Insulation Panels Market Outlook, By Battery Thermal Management (2024-2032) (\$MN)

Table 36 Global Vacuum Insulation Panels Market Outlook, By Cabin Insulation (2024-2032) (\$MN)

Table 37 Global Vacuum Insulation Panels Market Outlook, By Other Applications (2024-2032) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Middle East &

Africa Regions are also represented in the same manner as above.

I would like to order

Product name: Vacuum Insulation Panels Market Forecasts to 2032 – Global Analysis By Core Material (Fiber-based, Fumed Silica, Open-Cell Foam and Other Core Materials), Barrier Film Material (Plastics, Metals and Other Barrier Film Materials), Panel Shape, Application and By Geography

Product link: <https://marketpublishers.com/r/V94D1F979CF3EN.html>

Price: US\$ 4,150.00 (Single User License / Electronic Delivery)

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

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/V94D1F979CF3EN.html>