Aerogel Insulation Market Size & Share Analysis - Growth Trends and Forecast (2026 - 2031)

> **Industry:** Advanced Materials & Composites (Chemicals & Materials)
> **Source:** https://www.mordorintelligence.com/industry-reports/aerogel-insulation-market
> **Scraped Date:** 2026-09-17

Executive Market Summary

Market Metric	Details
Base Market Size	USD 1.66 billion
Projected Forecast (2031)	USD 1.66 billion
Growth Rate (CAGR)	13.87 %
Largest Market Region	N/A
Fastest-Growing Region	N/A

Market Visualizations & Infographics

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![Major players in Aerogel Insulation industry](images/chart_2.png)

![Aerogel Insulation Market Size](images/chart_3.png)

![Aerogel Insulation Market Share by Product Type, 2025](images/chart_4.png)

![Aerogel Insulation Market Share by Form, 2025](images/chart_5.png)

![Aerogel Insulation Market Growth Rate by Region](images/chart_6.png)

![Aerogel Insulation Market Concentration](images/chart_7.png)

![Icon](images/chart_8.png)

![footer background image](images/chart_10.png)

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Comprehensive Research Analysis

Overview Points List Flex 49 Share Feature End

Market OverviewStudy Period | 2021 - 2031 |
Market Size (2026) | USD 1.66 Billion |
Market Size (2031) | USD 3.18 Billion |
Growth Rate (2026 - 2031) | 13.87 % |
Fastest Growing Market | Asia-Pacific |
Largest Market | North America |
Market Concentration | Medium |
Major Players*Disclaimer: Major Players sorted in no particular order

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Market Overview

Aerogel Insulation Market Analysis by Mordor IntelligenceThe aerogel insulation market size is projected to expand from USD 1.47 billion in 2025 and USD 1.66 billion in 2026 to USD 3.18 billion by 2031, at a CAGR of 13.87% between 2026 and 2031. Energy-efficiency rules in major construction regions are raising the value of insulation in the aerogel insulation market, which can meet performance requirements within thin wall assemblies. LNG terminals, subsea pipelines, and refinery assets continue to require insulation that works at cryogenic and high operating temperatures. Battery safety requirements are also widening demand in the aerogel insulation market for thermal barriers in electric vehicles. These demand pools support the aerogel insulation market when activity in one end use slows, although high cost and careful handling still limit wider replacement of conventional materials.

Key Report Takeaways* By product type, silica aerogel held 45.47% revenue share in 2025, while polymer aerogel is forecast to grow at a 14.56% CAGR through 2031.
* By form, blankets held 41.35% revenue share in 2025, while particles are forecast to grow at a 14.23% CAGR through 2031.
* By application, oil and gas held 52.84% revenue share in 2025, while building and construction is forecast to grow at a 15.17% CAGR through 2031.
* By geography, North America held 41.13% revenue share in 2025, while Asia-Pacific is forecast to grow at a 14.78% CAGR through 2031.

Key Market Trends

Market Trends and InsightsDrivers Impact Analysis of Aerogel Insulation Market*Driver | (~) % Impact on CAGR Forecast | Geographic Relevance | Impact Timeline |

Tightening Energy-Efficiency Regulations | +4.2% | Global, with highest intensity in North America, EU, and China | Medium term (2-4 years) |
LNG Infrastructure and Cryogenic Insulation Expansion | +3.8% | Middle East, North America, Asia-Pacific, Southeast Asia, and Australia | Short term (≤ 2 years) |
EV Battery Thermal-Runaway Protection | +3.5% | North America, Europe, and China | Medium term (2-4 years) |
Industrial Retrofit and Corrosion-Under-Insulation Mitigation | +2.5% | North America, Middle East, and core Asia-Pacific | Short term (≤ 2 years) |
Thin-Profile Insulation for Heritage and Space-Constrained Buildings | +1.2% | Europe, North America, Japan, and South Korea | Long term (≥ 4 years) |
Source: Mordor Intelligence |

Competitive Landscape

Competitive Landscape

The aerogel insulation market is moderately concentrated, with full-cycle silica producers holding leading positions alongside newer Asian and polymer-aerogel suppliers. Aspen Aerogels operates in electric-vehicle thermal barriers and energy industrial insulation. The company reported USD 49.8 million in second-quarter 2026 revenue, a 32% sequential increase, and guided to USD 65 million to USD 80 million for the third quarter. Its Jaguar Land Rover supply award covers 2 next-generation vehicle architectures and multiple JLR brands. This award is scheduled to begin production in 2027. Cabot Corporation competes through Enova and ENTERA particle materials for coatings, daylighting, and battery applications.

ARMACELL supplies ArmaGel HT blankets for LNG and industrial-process insulation. BASF SE uses Slentex composite panels to bring aerogel into its construction-ch emicals portfolio. ENERSENS has formed a joint venture with a European automotive OEM to develop lightweight battery insulation. JIOS Aerogel uses a Hub & Spoke model that centralizes powder production in Korea and licenses regional barrier assembly. Its Korean licensee’s Hyundai and Kia award demonstrates how that approach can serve automotive customers without building multiple downstream plants. Guangdong Alison Technology, IBIH Advanced Material, NANO TECH CO., LTD, and Zhejiang UGOO Technology are expanding China’s silica aerogel supply.

Competition increasingly centers on complete material systems, not only low thermal conductivity. Producers are combining aerogel with flame retardants, fiber reinforcement, hydrophobic treatments, and vapor-management features. This approach can improve performance in applications where installation conditions and safety requirements matter as much as thermal resistance. Fire-integrated building products remain an area for development in Asian markets as high-rise building rules evolve. The aerogel insulation market, therefore, contains both performance-focused leaders and cost-focused entrants. New aerogel insulation market capacity can place pressure on standard blanket pricing, while certified materials can retain value in regulated applications. No combined share for the leading companies is provided, so a score based on the specified market-share thresholds cannot be assigned without introducing unsupported data.

Aerogel Insulation Industry Leaders* Aspen Aerogels, Inc.

* Cabot Corporation

* BASF

* ARMACELL

* Aerogel Technologies, LLC

* *Disclaimer: Major Players sorted in no particular order

Component Component 3 Scope Of The Report Bottom

Global Aerogel Insulation Market Report ScopeThe aerogel insulation market refers to the market for high-performance thermal insulation materials made using aerogel, primarily used in buildings, industrial facilities, pipelines, oil & gas infrastructure, LNG systems, and other applications requiring superior insulation performance with minimal thickness. The market includes aerogel blankets, panels, particles, and other forms supplied for thermal and energy-efficiency applications.

The aerogel insulation market is segmented by product type, form, application, and geography. By product type, the market is segmented into silica, polymer, carbon, and others. By form, the market is segmented into blanket, panel, particle, granules, and others. By application, the market is segmented into oil and gas, building and construction, industrial process insulation, automotive, aerospace and defense, and other applications. By geography, the market is segmented into Asia Pacific, North America, Europe, South America, Middle East, and Africa. The report also covers the aerogel insulation market size and forecasts for the aerogel insulation market in 15 countries across major regions. For each segment, the market sizing and forecasts have been done on the basis of value (USD).

By Product TypeSilica |
Polymer |
Carbon |
Others |

Segmentation Accordion Item

By GeographyAsia-Pacific | China |
| India |
| Japan |
| South Korea |
| Rest of Asia-Pacific |
North America | United States |
| Canada |
| Mexico |
Europe | Germany |
| United Kingdom |
| France |
| Italy |
| Rest of Europe |
South America | Brazil |
| Argentina |
| Rest of South America |
Middle East and Africa | Saudi Arabia |
| South Africa |
| Rest of Middle East and Africa |

Frequently Asked Questions

How large is the aerogel insulation market in 2026 and how much is it forecast to reach in 2031??

The aerogel insulation market size is USD 1.66 billion in 2026 and is forecast to reach USD 3.18 billion by 2031.

Which aerogel product type leads revenue?

Silica aerogel led with 45.47% revenue share in 2025, supported by its thermal and hydrophobic properties.

Which application is growing fastest through 2031?

Building and construction is forecast to grow at a 15.17% CAGR from 2026 to 2031.

Which region is growing fastest through 2031?

Asia-Pacific is forecast to grow at a 14.78% CAGR, supported by China, industrial development, and LNG projects.