

Global Aerogel Market Size was Worth USD 1.02 Bn in 2022, with an Estimated 16.3% CAGR from 2023 to 2031.

TNR says, Global Aerogel Market is Driven by Rising Demand for Energy-Efficient Solution Across Various Industries.

WILMINGTON, DELAWARE, UNITED STATES, December 4, 2023
/EINPresswire.com/ -- Global Aerogel Market Introduction

Aerogel is a highly porous material known for its extremely low density and impressive insulating properties.

It's often referred to as "frozen smoke" or "blue smoke" due to its translucent appearance and lightweight nature. Despite being almost entirely composed of air, aerogels are solid materials and can support a considerable amount of weight.

Aerogels are typically made by removing the liquid component from a gel through a process called supercritical drying. This involves replacing the liquid with a gas under high pressure and temperature, effectively preventing the gel from collapsing as the liquid is removed. The result is a solid material with a complex network of extremely tiny pores, which contribute to its remarkable properties.

[Get Sample Copy of the Report](#)

Future of the Global Aerogel Market

As the world strives for greater energy efficiency and reduced environmental impact, aerogels could play a significant role. Their outstanding insulating properties could be harnessed to minimize energy consumption in buildings, transportation, and industrial processes. New and unexpected applications for aerogels may emerge as researchers are exploring their properties further. This could include breakthroughs in areas like healthcare, electronics, wearables, and environmental remediation. As technologies evolve and global challenges change, the global aerogel market will expand and play a pivotal role in shaping a more sustainable and efficient future.

[Speak to our analyst in case of queries before buying this report](#)



Key Industry Insights: Global Aerogel Market

- Silica aerogel had the highest share in the global aerogel market in 2022. Silica aerogel, is produced by a solgel process in which the liquid-filled pores are replaced with gas. This produces an exceptionally low-density solid that may be endowed with a variety of extraordinary features, including hydrophobicity. Silica aerogel is one of the most effective thermal insulators which means it can significantly reduce heat transfer through conduction. This property makes it ideal for applications where effective insulation is crucial, such as in buildings, industrial equipment, and even space missions.
- Aerogels have been extensively used in space and aerospace applications due to their lightweight nature and exceptional thermal insulating properties. They are used to insulate spacecraft, rovers, and space suits, protecting them from extreme temperatures in space. They were notably used in NASA's Stardust mission to capture particles from a comet's tail.
- The oil and gas industry also highly uses aerogels for thermal insulation in pipelines, vessels, and equipment operating under extreme temperatures. The lightweight and high-temperature resistance of aerogels make them valuable in this industry to reduce energy losses and maintain operational efficiency.
- Asia Pacific region is anticipated to be the fastest growing region in the upcoming years. Many Asian countries have been experiencing rapid industrial growth, particularly in sectors such as construction, automotive manufacturing, electronics, and energy. Aerogels' unique properties, such as their insulation capabilities and lightweight nature, has led to the rise in demand for aerogel. Moreover in the last five years, it has been observed that the market share of production capacity from Chinese players rise from a relatively small proportion to over 50%. Thus, during the forecast period, aerogel market in Asia Pacific will experience huge growth.

[Request for customization to meet your precise research requirements](#)

Competitive Landscape

The competitive landscape of global aerogel market is highly influenced by factors such as technological innovations, product differentiation, market expansion, and environmental considerations. The key competitors in the global aerogel market, are contributing to advancements in energy-efficient materials, insulation solutions, and specialized applications.

Key Developments in the Global Aerogel Market

In May 2023, Cabot Corporation has launched its new ENTERATM aerogel particle range. Aerogel particles from ENTERA serve as a thermal insulation additive that may be utilized to create ultra-thin thermal shields for lithium-ion batteries utilized in electric vehicles (EVs). Cabot has released three ENTERA aerogel solutions in this portfolio, which formulators may combine into a variety of thermal barrier forms such as blankets, pads, sheets, films, foams, and coatings.

In November 2021, Chinese researchers have created super-elastic graphene aerogels (SGA) utilising ambient pressure drying, paving the way for large-scale production of high-performance graphene aerogels. When compared to graphene aerogels made by freeze-drying, the as-prepared SGA demonstrated superior overall performance and exceptional oil adsorption

Global Aerogel Market Segmentation

Global Aerogel Market - Type Outlook (Revenue, USD Million, 2015 - 2031)

- Silica
- Polymers
- Carbon
- Others

Global Aerogel Market –Processing Outlook (Revenue, USD Million, 2015 - 2031)

- Virgin
- Composites
- Additives

Global Aerogel Market –Form Outlook (Revenue, USD Million, 2015 - 2031)

- Monolith
- Blanket
- Panel
- Particle

Global Aerogel Market –End User Industry Outlook (Revenue, USD Million, 2015 - 2031)

- Oil and Gas
- Marine
- Aerospace
- Automotive
- Energy and Utilities
- Electronics
- Construction
- Manufacturing
- Medical
- Others

Global Aerogel Market - Regional Outlook (Revenue, USD Million, 2015 - 2031)

- North America (U.S., Canada, Mexico, Rest of North America)
- Europe (France, The UK, Spain, Germany, Italy, Nordic Countries (Denmark, Finland, Iceland, Sweden, Norway), Benelux Union (Belgium, The Netherlands, Luxembourg), Rest of Europe)
- Asia Pacific (China, Japan, India, New Zealand, Australia, South Korea, Southeast Asia (Indonesia, Thailand, Malaysia, Singapore, Rest of Southeast Asia), Rest of Asia Pacific)
- Middle East & Africa (Saudi Arabia, UAE, Egypt, Kuwait, South Africa, Rest of Middle East & Africa)
- Latin America (Brazil, Argentina, Rest of Latin America)

List of Key Players in the Global Aerogel Market

- Active Aerogels
- Aerogel Technologies, LLC
- Armacell
- Aspen Aerogels, Inc.

- BASF SE
- Cabot Corporation
- Dow
- Guangdong Alison Hi-tech Co, Ltd
- JIOS Aerogel
- Nano Tech Co., Ltd.
- Svenska Aerogel
- Thermablok
- Other market participants

Consult with Our Expert:

Jay Reynolds

The Niche Research

Japan (Toll-Free): +81 663-386-8111

South Korea (Toll-Free): +82-808- 703-126

Saudi Arabia (Toll-Free): +966 800-850-1643

United Kingdom: +44 753-710-5080

United States: +1 302-232-5106

Email: askanexpert@thenicheresearch.com

Website: www.thenicheresearch.com

Jay Reynolds

The Niche Research

+1 302-232-5106

[email us here](#)

This press release can be viewed online at: <https://www.einpresswire.com/article/672791687>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2023 Newsmatics Inc. All Right Reserved.