

The Global Market for Aerogels 2024-2034

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Abstracts

Aerogels are lightweight, nanostructured porous materials derived from gel in which the liquid component is replaced with air. They exhibit properties like low thermal conductivity, low density, high surface area (>150 m2/g) and open porosity (typically 95–99.99 %). Their high porosities and low densities make aerogels excellent lightweight insulators of heat, sound, and electricity, and their high specific surface areas make them good absorbers of both active materials for controlled release, and of pollutants. Key end-use markets are in construction, oil & gas, automotive, aerospace, and coatings. Construction is the largest segment, but the the EV battery pack market (thermal insulation & fire protection) is growing fast.

Silica aerogels account for the largest market share, combining high insulation with costeffectiveness. Polymer and carbon aerogels are gaining market share. Key players include Aspen Aerogels, Cabot Corporation, BASF, Armacell, JIOS Aerogel Corporation, and Enersens. Market growth drivers include demand from the Electric Vehicle battery market, building insulation demand, and the need for high performance, lightweight materials to meet environmental targets.

Report contents include:

Production methods for aerogels.

Aerogel markets and applications.

Aerogel analysis including:

Silica aerogels.

Silica composite aerogels.



Organic aerogels.

Hybrid aerogels.

3D printed aerogels.

Bio-based and sustainable aerogels.

Market drivers, trends and challenges.

Competitive landscape.

Aerogel Manufacturer Capacities.

Manufacturing in China.

Market developments 2020-2023.

Market analysis. Markets covered include:

Oil and Gas

Refineries.

Pipelines.

Building and construction.

Panels and blankets

Coatings and paints

Plaster, concrete and bricks

Window insulation

Automotive



EV battery pack thermal insulation & fire protection

Sound dampening coatings

Cabin noise insulation

Engine compartment insulation

Paint additives

Thermal management components

Catalytic converter substrates

Thermal insulation in fuel systems

Energy storage

Silicon anodes

Li-S batteries

Electrodes

Supercapacitors

Hydrogen

Solar energy collection

Biomedical

Drug delivery

Tissue engineering

Medical implants

Wound care



Cold-Chain packaging

Electronics

EMI shielding

Thermal insulation

Low loss materials for 5G

Filtration, separation, and sorption

Air filtration

Water filtration

Oil-spill remediation

Apparel and footwear

Thermal insulation

Waterproofing

Flame resistance

Anti-microbial

Ballistic protection

Food.

Packaging

Biosensors

Nutrient carriers



Catalysts.

Aerospace.

Cosmetics.

Thermoelectric generators.

Sporting goods.

Knudsen pumps.

Patent analysis.

Global aerogel revenues 2018-2034, By market, By form, By aerogel type, By region.

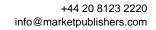
Profiles of 49 companies including products, aerogel types, production capacities, and end-use markets targeted. Companies profiled include Aerogel Core Ltd., Aeroshield, Armacell, Aspen Aerogels, Cabot Corporation, JIOS Aerogel, Krosslinker, Liatris, and SUMTEQ.



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