

Aluminum Foam Market By Type (Open cell, Closed cell), By Application (Energy Absorber, Heat Exchanger, Filtration, Sound Insulation, Others), By End-Use Industry (Aerospace and Defense, Automotive, Building and Construction, Others): Global Opportunity Analysis and Industry Forecast, 2023-2032

Market Report | 2023-05-01 | 350 pages | Allied Market Research

AVAILABLE LICENSES:

- Cloud Access License \$3110.40
- Business User License \$5157.00
- Enterprise License \$8640.00

Report description:

The global aluminum foam market was valued at \$41.3 million in 2022, and is projected to reach \$60.5 million by 2032, growing at a CAGR of 4.1% from 2023 to 2032.

Aluminum foam is produced through a process called foaming, which involves the introduction of a gas or blowing agent into a molten metal, causing it to expand and form a cellular structure. The resulting material has a high strength-to-weight ratio and excellent energy absorption capabilities, making it useful in a variety of applications.

The properties of aluminum foam depend on its composition, pore size, and density. The foam can be made with varying levels of porosity and density, allowing it to be tailored to specific applications. For instance, low-density aluminum foam is ideal for use as insulation, while high-density foam can be used for structural applications. One of the main advantages of aluminum foam is its lightweight nature. It is much lighter than solid aluminum, making it useful in applications where weight is a concern, such as in the aerospace industry. Additionally, aluminum foam has excellent energy absorption capabilities, making it useful in applications where impact resistance is important.

The aluminum foam market is segmented into type, application, end-use industry, and region. On the basis of type, the market is categorized into open cell and closed cell. By application, it is divided into energy absorber, heat exchanger, filtration, sound insulation, and others. Depending on end-use industry, it is segregated into aerospace & defense, automotive, building & construction, and others. Region wise, the market is studied across North America, Europe, Asia-Pacific, and LAMEA.

By type, the open cell segment dominated the global laminated timber market in 2022. Open cell aluminum foam has several potential applications due to its unique properties, including its high strength-to-weight ratio, notable energy absorption, and enhanced thermal conductivity. It can be used in the aerospace and automotive industries to make parts such as panels, frames,

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

and crash absorbers. High thermal conductivity of aluminum foam makes it suitable for applications where heat dissipation is critical, such as heat exchangers, radiators, and electronic cooling systems.

Furthermore, open cell aluminum foam can be used as a filter media for water filtration, especially in areas with high levels of suspended solids or in wastewater treatment plants. In June 2022, A. O. Smith acquired water treatment solutions provider, Atlantic Filter Corporation. The acquisition of Atlantic Filter further expanded the company's capabilities in Florida. A. O. Smith is committed to growing its water treatment business as part of their strategy to deliver innovative, differentiated solutions that heat and treat water.

Increase in adoption of aluminum foams for construction and interior decoration drives the market growth in the aluminum foam market in terms of revenue in 2022. Aluminum foam has been increasingly adopted in the construction industry for a wide range of applications, including interior decoration, insulation, and structural elements. The unique properties of aluminum foam, including its lightweight, high strength-to-weight ratio, and excellent energy absorption capabilities, make it an ideal material for use in construction.

In constructions, aluminum foam panels can be used as a substitute for traditional building materials such as concrete, steel, and wood. Aluminum foam are commonly used in wall and roof panels, doors, windows, and flooring systems. These panels provide better thermal insulation and soundproofing compared to traditional building materials, resulting in a more comfortable indoor environment. In addition, aluminum foam panels are resistant to fire, water, and insects, making them a more durable and long-lasting option.

However, recyclability of aluminum foam is expected to provide sufficient development prospects for the expansion of the global market in the future years. The recycling process for aluminum foam involves melting down the material and reusing it to create new products. This process can be done repeatedly without affecting the quality of the aluminum, making aluminum foam a highly recyclable material. One of the benefits of recycling aluminum foam is that it requires significantly less energy than producing aluminum from raw materials. Recycling aluminum foam can save up to 95% of the energy that would be required to produce aluminum from bauxite ore. This means that recycling aluminum foam can help reduce greenhouse gas emissions and other environmental impacts associated with the production of new aluminum.

Recycled aluminum foam can be used to create a variety of products, including automotive parts, aerospace components, and building materials. The properties of the material remain largely intact during the recycling process, making it a suitable replacement for new aluminum in many applications.

In addition, the report covers profiles of key industry participants such American Elements, BEIHAI Composite Materials Co., Ltd., ERG Aerospace Corporation, Foamtech Global, Havel Metal Foam, NANOCHEMAZONE, Nanoshel LLC, VIM Technology Ltd, Xiamen TJ Metal Material Co., Ltd., and Xiamen Tmax Battery Equipments Limited.

Key Benefits For Stakeholders

- This report provides a quantitative analysis of the market segments, current trends, estimations, and dynamics of the aluminum foam market analysis from 2022 to 2032 to identify the prevailing aluminum foam market opportunities.
- The market research is offered along with information related to key drivers, restraints, and opportunities.
- Porter's five forces analysis highlights the potency of buyers and suppliers to enable stakeholders make profit-oriented business decisions and strengthen their supplier-buyer network.
- In-depth analysis of the aluminum foam market segmentation assists to determine the prevailing market opportunities.
- Major countries in each region are mapped according to their revenue contribution to the global market.
- Market player positioning facilitates benchmarking and provides a clear understanding of the present position of the market players.
- The report includes the analysis of the regional as well as global aluminum foam market trends, key players, market segments, application areas, and market growth strategies.

Key Market Segments

By Type

- Open cell
- Closed cell

By Application

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- Energy Absorber
- Heat Exchanger
- Filtration
- Sound Insulation
- Others

By End-Use Industry

- Aerospace and Defense
- Automotive
- Building and Construction
- Others

By Region

- North America
- U.S.
- Canada
- Mexico
- Europe
- Germany
- France
- Italy
- UK
- Spain
- Rest of Europe
- Asia-Pacific
- China
- India
- Japan
- South Korea
- Australia
- Rest of Asia-Pacific
- LAMEA
- Brazil
- South Africa
- Saudi Arabia
- Rest of LAMEA
- Key Market Players
- AMERICAN ELEMENTS
- BEIHAI Composite Materials Co., Ltd.
- ERG Aerospace Corporation
- FOAMTECH GLOBAL
- Havel Metal Foam
- NANOCHEMAZONE
- Nanoshel LLC
- VIM Technology Ltd
- Xiamen TJ Metal Material Co., Ltd.
- Xiamen Tmax Battery Equipments Limited.

Table of Contents:

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

CHAPTER 1: INTRODUCTION

- 1.1. Report description
- 1.2. Key market segments
- 1.3. Key benefits to the stakeholders
- 1.4. Research Methodology
 - 1.4.1. Primary research
 - 1.4.2. Secondary research
 - 1.4.3. Analyst tools and models

CHAPTER 2: EXECUTIVE SUMMARY

- 2.1. CXO Perspective

CHAPTER 3: MARKET OVERVIEW

- 3.1. Market definition and scope
- 3.2. Key findings
 - 3.2.1. Top impacting factors
 - 3.2.2. Top investment pockets
- 3.3. Porter's five forces analysis
 - 3.3.1. Bargaining power of suppliers
 - 3.3.2. Bargaining power of buyers
 - 3.3.3. Threat of substitutes
 - 3.3.4. Threat of new entrants
 - 3.3.5. Intensity of rivalry
- 3.4. Market dynamics
 - 3.4.1. Drivers
 - 3.4.1.1. Rise in use of aluminum foam in energy absorption
 - 3.4.1.2. Increase in adoption of aluminum foams for construction and interior decoration
 - 3.4.2. Restraints
 - 3.4.2.1. Corrosion susceptibility of aluminum foam
 - 3.4.3. Opportunities
 - 3.4.3.1. Recyclability of aluminum foam

3.5. COVID-19 Impact Analysis on the market

- 3.6. Key Regulation Analysis
- 3.7. Patent Landscape
- 3.8. Pricing Analysis
- 3.9. Regulatory Guidelines
- 3.10. Value Chain Analysis

CHAPTER 4: ALUMINUM FOAM MARKET, BY TYPE

- 4.1. Overview
 - 4.1.1. Market size and forecast
- 4.2. Open cell
 - 4.2.1. Key market trends, growth factors and opportunities
 - 4.2.2. Market size and forecast, by region
 - 4.2.3. Market share analysis by country
- 4.3. Closed cell
 - 4.3.1. Key market trends, growth factors and opportunities

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

4.3.2. Market size and forecast, by region

4.3.3. Market share analysis by country

CHAPTER 5: ALUMINUM FOAM MARKET, BY APPLICATION

5.1. Overview

5.1.1. Market size and forecast

5.2. Energy Absorber

5.2.1. Key market trends, growth factors and opportunities

5.2.2. Market size and forecast, by region

5.2.3. Market share analysis by country

5.3. Heat Exchanger

5.3.1. Key market trends, growth factors and opportunities

5.3.2. Market size and forecast, by region

5.3.3. Market share analysis by country

5.4. Filtration

5.4.1. Key market trends, growth factors and opportunities

5.4.2. Market size and forecast, by region

5.4.3. Market share analysis by country

5.5. Sound Insulation

5.5.1. Key market trends, growth factors and opportunities

5.5.2. Market size and forecast, by region

5.5.3. Market share analysis by country

5.6. Others

5.6.1. Key market trends, growth factors and opportunities

5.6.2. Market size and forecast, by region

5.6.3. Market share analysis by country

CHAPTER 6: ALUMINUM FOAM MARKET, BY END-USE INDUSTRY

6.1. Overview

6.1.1. Market size and forecast

6.2. Aerospace and Defense

6.2.1. Key market trends, growth factors and opportunities

6.2.2. Market size and forecast, by region

6.2.3. Market share analysis by country

6.3. Automotive

6.3.1. Key market trends, growth factors and opportunities

6.3.2. Market size and forecast, by region

6.3.3. Market share analysis by country

6.4. Building and Construction

6.4.1. Key market trends, growth factors and opportunities

6.4.2. Market size and forecast, by region

6.4.3. Market share analysis by country

6.5. Others

6.5.1. Key market trends, growth factors and opportunities

6.5.2. Market size and forecast, by region

6.5.3. Market share analysis by country

CHAPTER 7: ALUMINUM FOAM MARKET, BY REGION

7.1. Overview

7.1.1. Market size and forecast By Region

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 7.2. North America
 - 7.2.1. Key trends and opportunities
 - 7.2.2. Market size and forecast, by Type
 - 7.2.3. Market size and forecast, by Application
 - 7.2.4. Market size and forecast, by End-Use Industry
 - 7.2.5. Market size and forecast, by country
 - 7.2.5.1. U.S.
 - 7.2.5.1.1. Key market trends, growth factors and opportunities
 - 7.2.5.1.2. Market size and forecast, by Type
 - 7.2.5.1.3. Market size and forecast, by Application
 - 7.2.5.1.4. Market size and forecast, by End-Use Industry
 - 7.2.5.2. Canada
 - 7.2.5.2.1. Key market trends, growth factors and opportunities
 - 7.2.5.2.2. Market size and forecast, by Type
 - 7.2.5.2.3. Market size and forecast, by Application
 - 7.2.5.2.4. Market size and forecast, by End-Use Industry
 - 7.2.5.3. Mexico
 - 7.2.5.3.1. Key market trends, growth factors and opportunities
 - 7.2.5.3.2. Market size and forecast, by Type
 - 7.2.5.3.3. Market size and forecast, by Application
 - 7.2.5.3.4. Market size and forecast, by End-Use Industry
- 7.3. Europe
 - 7.3.1. Key trends and opportunities
 - 7.3.2. Market size and forecast, by Type
 - 7.3.3. Market size and forecast, by Application
 - 7.3.4. Market size and forecast, by End-Use Industry
 - 7.3.5. Market size and forecast, by country
 - 7.3.5.1. Germany
 - 7.3.5.1.1. Key market trends, growth factors and opportunities
 - 7.3.5.1.2. Market size and forecast, by Type
 - 7.3.5.1.3. Market size and forecast, by Application
 - 7.3.5.1.4. Market size and forecast, by End-Use Industry
 - 7.3.5.2. France
 - 7.3.5.2.1. Key market trends, growth factors and opportunities
 - 7.3.5.2.2. Market size and forecast, by Type
 - 7.3.5.2.3. Market size and forecast, by Application
 - 7.3.5.2.4. Market size and forecast, by End-Use Industry
 - 7.3.5.3. Italy
 - 7.3.5.3.1. Key market trends, growth factors and opportunities
 - 7.3.5.3.2. Market size and forecast, by Type
 - 7.3.5.3.3. Market size and forecast, by Application
 - 7.3.5.3.4. Market size and forecast, by End-Use Industry
 - 7.3.5.4. UK
 - 7.3.5.4.1. Key market trends, growth factors and opportunities
 - 7.3.5.4.2. Market size and forecast, by Type
 - 7.3.5.4.3. Market size and forecast, by Application
 - 7.3.5.4.4. Market size and forecast, by End-Use Industry

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 7.3.5.5. Spain
 - 7.3.5.5.1. Key market trends, growth factors and opportunities
 - 7.3.5.5.2. Market size and forecast, by Type
 - 7.3.5.5.3. Market size and forecast, by Application
 - 7.3.5.5.4. Market size and forecast, by End-Use Industry
- 7.3.5.6. Rest of Europe
 - 7.3.5.6.1. Key market trends, growth factors and opportunities
 - 7.3.5.6.2. Market size and forecast, by Type
 - 7.3.5.6.3. Market size and forecast, by Application
 - 7.3.5.6.4. Market size and forecast, by End-Use Industry
- 7.4. Asia-Pacific
 - 7.4.1. Key trends and opportunities
 - 7.4.2. Market size and forecast, by Type
 - 7.4.3. Market size and forecast, by Application
 - 7.4.4. Market size and forecast, by End-Use Industry
 - 7.4.5. Market size and forecast, by country
 - 7.4.5.1. China
 - 7.4.5.1.1. Key market trends, growth factors and opportunities
 - 7.4.5.1.2. Market size and forecast, by Type
 - 7.4.5.1.3. Market size and forecast, by Application
 - 7.4.5.1.4. Market size and forecast, by End-Use Industry
 - 7.4.5.2. India
 - 7.4.5.2.1. Key market trends, growth factors and opportunities
 - 7.4.5.2.2. Market size and forecast, by Type
 - 7.4.5.2.3. Market size and forecast, by Application
 - 7.4.5.2.4. Market size and forecast, by End-Use Industry
 - 7.4.5.3. Japan
 - 7.4.5.3.1. Key market trends, growth factors and opportunities
 - 7.4.5.3.2. Market size and forecast, by Type
 - 7.4.5.3.3. Market size and forecast, by Application
 - 7.4.5.3.4. Market size and forecast, by End-Use Industry
 - 7.4.5.4. South Korea
 - 7.4.5.4.1. Key market trends, growth factors and opportunities
 - 7.4.5.4.2. Market size and forecast, by Type
 - 7.4.5.4.3. Market size and forecast, by Application
 - 7.4.5.4.4. Market size and forecast, by End-Use Industry
 - 7.4.5.5. Australia
 - 7.4.5.5.1. Key market trends, growth factors and opportunities
 - 7.4.5.5.2. Market size and forecast, by Type
 - 7.4.5.5.3. Market size and forecast, by Application
 - 7.4.5.5.4. Market size and forecast, by End-Use Industry
 - 7.4.5.6. Rest of Asia-Pacific
 - 7.4.5.6.1. Key market trends, growth factors and opportunities
 - 7.4.5.6.2. Market size and forecast, by Type
 - 7.4.5.6.3. Market size and forecast, by Application
 - 7.4.5.6.4. Market size and forecast, by End-Use Industry
- 7.5. LAMEA

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 7.5.1. Key trends and opportunities
- 7.5.2. Market size and forecast, by Type
- 7.5.3. Market size and forecast, by Application
- 7.5.4. Market size and forecast, by End-Use Industry
- 7.5.5. Market size and forecast, by country
 - 7.5.5.1. Brazil
 - 7.5.5.1.1. Key market trends, growth factors and opportunities
 - 7.5.5.1.2. Market size and forecast, by Type
 - 7.5.5.1.3. Market size and forecast, by Application
 - 7.5.5.1.4. Market size and forecast, by End-Use Industry
 - 7.5.5.2. South Africa
 - 7.5.5.2.1. Key market trends, growth factors and opportunities
 - 7.5.5.2.2. Market size and forecast, by Type
 - 7.5.5.2.3. Market size and forecast, by Application
 - 7.5.5.2.4. Market size and forecast, by End-Use Industry
 - 7.5.5.3. Saudi Arabia
 - 7.5.5.3.1. Key market trends, growth factors and opportunities
 - 7.5.5.3.2. Market size and forecast, by Type
 - 7.5.5.3.3. Market size and forecast, by Application
 - 7.5.5.3.4. Market size and forecast, by End-Use Industry
 - 7.5.5.4. Rest of LAMEA
 - 7.5.5.4.1. Key market trends, growth factors and opportunities
 - 7.5.5.4.2. Market size and forecast, by Type
 - 7.5.5.4.3. Market size and forecast, by Application
 - 7.5.5.4.4. Market size and forecast, by End-Use Industry

CHAPTER 8: COMPETITIVE LANDSCAPE

- 8.1. Introduction
- 8.2. Top winning strategies
- 8.3. Product Mapping of Top 10 Player
- 8.4. Competitive Dashboard
- 8.5. Competitive Heatmap
- 8.6. Top player positioning, 2022

CHAPTER 9: COMPANY PROFILES

- 9.1. AMERICAN ELEMENTS
 - 9.1.1. Company overview
 - 9.1.2. Key Executives
 - 9.1.3. Company snapshot
 - 9.1.4. Operating business segments
 - 9.1.5. Product portfolio
- 9.2. BEIHAI Composite Materials Co., Ltd.
 - 9.2.1. Company overview
 - 9.2.2. Key Executives
 - 9.2.3. Company snapshot
 - 9.2.4. Operating business segments
 - 9.2.5. Product portfolio
- 9.3. ERG Aerospace Corporation
 - 9.3.1. Company overview

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 9.3.2. Key Executives
- 9.3.3. Company snapshot
- 9.3.4. Operating business segments
- 9.3.5. Product portfolio
- 9.4. Havel Metal Foam
- 9.4.1. Company overview
- 9.4.2. Key Executives
- 9.4.3. Company snapshot
- 9.4.4. Operating business segments
- 9.4.5. Product portfolio
- 9.5. NANOHEMAZONE
- 9.5.1. Company overview
- 9.5.2. Key Executives
- 9.5.3. Company snapshot
- 9.5.4. Operating business segments
- 9.5.5. Product portfolio
- 9.6. Nanoshel LLC
- 9.6.1. Company overview
- 9.6.2. Key Executives
- 9.6.3. Company snapshot
- 9.6.4. Operating business segments
- 9.6.5. Product portfolio
- 9.7. Xiamen TJ Metal Material Co., Ltd.
- 9.7.1. Company overview
- 9.7.2. Key Executives
- 9.7.3. Company snapshot
- 9.7.4. Operating business segments
- 9.7.5. Product portfolio
- 9.8. FOAMTECH GLOBAL
- 9.8.1. Company overview
- 9.8.2. Key Executives
- 9.8.3. Company snapshot
- 9.8.4. Operating business segments
- 9.8.5. Product portfolio
- 9.9. VIM Technology Ltd
- 9.9.1. Company overview
- 9.9.2. Key Executives
- 9.9.3. Company snapshot
- 9.9.4. Operating business segments
- 9.9.5. Product portfolio
- 9.10. Xiamen Tmax Battery Equipments Limited.
- 9.10.1. Company overview
- 9.10.2. Key Executives
- 9.10.3. Company snapshot
- 9.10.4. Operating business segments
- 9.10.5. Product portfolio

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Aluminum Foam Market By Type (Open cell, Closed cell), By Application (Energy Absorber, Heat Exchanger, Filtration, Sound Insulation, Others), By End-Use Industry (Aerospace and Defense, Automotive, Building and Construction, Others): Global Opportunity Analysis and Industry Forecast, 2023-2032

Market Report | 2023-05-01 | 350 pages | Allied Market Research

To place an Order with Scotts International:

- ☐ - Print this form
- ☐ - Complete the relevant blank fields and sign
- ☐ - Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Cloud Access License	\$3110.40
	Business User License	\$5157.00
	Enterprise License	\$8640.00
		VAT
		Total

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

☐ ** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*	<input type="text"/>	Phone*	<input type="text"/>
First Name*	<input type="text"/>	Last Name*	<input type="text"/>
Job title*	<input type="text"/>		
Company Name*	<input type="text"/>	EU Vat / Tax ID / NIP number*	<input type="text"/>
Address*	<input type="text"/>	City*	<input type="text"/>
Zip Code*	<input type="text"/>	Country*	<input type="text"/>

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Date

2025-06-25

Signature



Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com