

## **Advanced Functional Materials - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)**

Market Report | 2025-04-28 | 120 pages | Mordor Intelligence

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### **Report description:**

The Advanced Functional Materials Market is expected to register a CAGR of greater than 6% during the forecast period.

The COVID-19 pandemic drastically affected the market for advanced functional materials, resulting in the manufacturing facilities' closure. Due to this cause, the consumption of advanced functional materials, specifically nanomaterials and conductive polymers, was greatly reduced, which constrained the growth of the market globally. But the post-COVID-19 era saw a rebound again with increased demand from the electric, electronics, and automotive industries.

#### Key Highlights

- Over the short term, one of the major factors driving the market studied is the growing advancement in medical devices.
- Moreover, with an emphasis on diagnostic imaging, implants and regeneration in medicine, equipment manufacturing for drug delivery, and biomedical science, the demand for advanced functional materials is rising rapidly, which tends to boost the market's growth.
- The Asia-Pacific region dominated the global market, with robust demand from countries like China and India.

#### Advanced Functional Materials Market Trends

##### Aerospace and Defense Segment to Dominate the Market

- The aerospace and defense industry is expected to be one of the largest consumers of advanced functional materials during the

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forecast period.

- Nanotechnology provides several advances for military and defense applications, including biological, nuclear, and chemical sensing improvements. Additionally, nanotechnology offers offsetting reductions in the military workforce, reduced risks to troops on the battlefield, and improved vehicle performance.
- Due to numerous security challenges such as violent extremism and separatist insurgencies, the world's world's military expenditure reached a record level in the second year of the pandemic, reaching an all-time high of USD 2.1 trillion in 2021, which shows an increase of 6.7% compared to 2020. It was the seventh consecutive year that spending increased. The United States accounted for 38% of total military spending globally.
- According to Boeing, the market value for commercial airplanes is expected to reach USD 3.1 trillion by 2028, as operators are expected to replace older jets with more fuel-efficient models and expand their fleets to accommodate the steady rise in air travel across emerging and established markets.
- Over the next two decades, the increasing passenger volume and airplane retirements are expected to drive the need for 44,040 new jets (valued at USD 6.8 trillion). The global commercial fleet is forecast to reach 50,660 airplanes by 2038, considering all the new airplanes and jets that will remain in service.
- The Chinese defense industry is growing rapidly, with many Chinese firms displacing Western defense powerhouses. The country invests heavily to upgrade its military, thus making its eight defense firms rank among the top 25 in the world. Moreover, China is the world's world's second-largest military spending country. For instance, in 2021, China allocated USD 293 billion to its military, an increase of 4.7% compared with 2020. Furthermore, the 2021 Chinese budget was the first under the 14th Five-Year Plan, which runs until 2025.
- AVIC company ranks third in the world, and it developed China's fifth-generation J-20 fighter and the new H-20 stealth bomber, among other projects.
- The market will likely witness huge future growth due to all the abovementioned factors.

#### Asia-Pacific Region to Dominate the Market

- Asia-Pacific region was the largest market for advanced functional materials. China accounted for the major chunk of consumption in the region.
- According to the OICA, Asia-Pacific dominated global automobile production recently. China is the largest producer of automobiles globally, with a production volume of 26.08 million automobiles in 2021, which shows an increase of 3% compared with 2020. Therefore, such a positive production scenario helps create demand for an advanced functional market.
- China is a key contributor to global air traffic growth for the past few years. The average passenger growth rate is over 10% per year. This growth is primarily driven by rising passenger traffic due to higher spending power and better air connectivity. Thus, increasing passenger traffic is expected to boost the demand for aircraft.
- According to Boeing's estimates for 2021, the airplane market value will be USD 7.3 trillion for new airplane deliveries, with the global fleet increasing by 80% through 2041 compared to 2019 pre-pandemic levels. Therefore, this is expected to drive the demand for advanced functional materials in the coming years.
- The Indian aerospace and defense (A&D) market is expected to cross USD 70 billion by 2030, according to the Indian Brand Equity Foundation, led by burgeoning demand for advanced infrastructure and government thrust.
- India's defense budget for 2022-2023 is INR 5,25,166 crore (USD 67.66 billion), up 11.4% from 2021-2022. The Defence Services Estimates (DSE), which covers the budgets of the three armed forces and the Defence Research and Development Organisation, received INR 3,23,053 crore (USD 46.2 billion) from the Ministry of Defence's overall allocations (DRDO).
- All the factors above, in turn, are projected to show a significant impact on market growth in the coming years.

#### Advanced Functional Materials Industry Overview

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The global advanced functional materials market is partially consolidated in nature. The major players in this market include (not in a particular order) 3M, Arkema, Evonik Industries AG, Covestro AG, and BASF SE, among others.

Additional Benefits:

- The market estimate (ME) sheet in Excel format
- 3 months of analyst support

#### **Table of Contents:**

### 1 INTRODUCTION

#### 1.1 Study Assumptions

#### 1.2 Scope of the Study

### 2 RESEARCH METHODOLOGY

### 3 EXECUTIVE SUMMARY

### 4 MARKET DYNAMICS

#### 4.1 Drivers

##### 4.1.1 Increased use as an Alternative to Metals and Plastics

##### 4.1.2 Increasing Demand from the Healthcare Industry

#### 4.2 Restraints

##### 4.2.1 The Cost and Availability of Raw Material to Hinder the Market for Advanced Functional Materials.

#### 4.3 Industry Value-Chain Analysis

#### 4.4 Porter's Five Forces Analysis

##### 4.4.1 Bargaining Power of Suppliers

##### 4.4.2 Bargaining Power of Consumers

##### 4.4.3 Threat of New Entrants

##### 4.4.4 Threat of Substitute Products and Services

##### 4.4.5 Degree of Competition

### 5 MARKET SEGMENTATION

#### 5.1 Type

##### 5.1.1 Ceramics

##### 5.1.2 Energy Materials

##### 5.1.3 Conductive Polymers

##### 5.1.4 Nanomaterials

##### 5.1.5 Composites

##### 5.1.6 Others

#### 5.2 End-user Industry

##### 5.2.1 Electrical and Electronics

##### 5.2.2 Automotive

##### 5.2.3 Healthcare

##### 5.2.4 Aerospace and Defense

##### 5.2.5 Energy and Power (incl. Chemical Industry)

##### 5.2.6 Others

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- 5.3 Geography
  - 5.3.1 Asia-Pacific
    - 5.3.1.1 China
    - 5.3.1.2 India
    - 5.3.1.3 Japan
    - 5.3.1.4 South Korea
    - 5.3.1.5 Rest of Asia-Pacific
  - 5.3.2 North America
    - 5.3.2.1 United States
    - 5.3.2.2 Canada
    - 5.3.2.3 Mexico
  - 5.3.3 Europe
    - 5.3.3.1 Germany
    - 5.3.3.2 United Kingdom
    - 5.3.3.3 Italy
    - 5.3.3.4 France
    - 5.3.3.5 Rest of Europe
  - 5.3.4 South America
    - 5.3.4.1 Brazil
    - 5.3.4.2 Argentina
    - 5.3.4.3 Rest of South America
  - 5.3.5 Middle-East and Africa
    - 5.3.5.1 Saudi Arabia
    - 5.3.5.2 South Africa
    - 5.3.5.3 Rest of Middle-East and Africa

## 6 COMPETITIVE LANDSCAPE

- 6.1 Mergers & Acquisitions, Joint Ventures, Collaborations, and Agreements
- 6.2 Market Share Analysis (%)\*\* /Ranking Analysis
- 6.3 Strategies Adopted by Leading Players
- 6.4 Company Profiles
  - 6.4.1 3M
  - 6.4.2 Arkema
  - 6.4.3 BASF SE
  - 6.4.4 CeramTec GmbH
  - 6.4.5 Covestro AG
  - 6.4.6 Evonik Industries AG
  - 6.4.7 Hexcel Corporation
  - 6.4.8 KYOCERA Corporation
  - 6.4.9 Momentive
  - 6.4.10 Emeren
  - 6.4.11 SHOWA DENKO K.K.
  - 6.4.12 Sumitomo Chemical Co., Ltd.

## 7 MARKET OPPORTUNITIES AND FUTURE TRENDS

- 7.1 Growth of Usage in Nano Technology

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