

Aerospace Composites Market by Fiber Type (Glass Fiber, Carbon Fiber, Ceramic Fiber), Matrix Type (Polymer Matrix Composite, Metal Matrix Composite, Ceramic Matrix Composite), Manufacturing Process, Aircraft Type, Applications & Region -Forecast to 2029

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Report description:

The aerospace composites market is estimated at USD 29.1 billion in 2024 and is projected to reach USD 52.1 billion by 2029, at a CAGR of 12.3% from 2024 to 2029. Ceramic fiber composites are a type of aerospace composite material that combines the high-temperature stability and strength of ceramics with the toughness and flexibility of composites. They are made up of ceramic fibers embedded in a ceramic matrix, and they exhibit superior properties such as high temperature resistance, low density, and exceptional mechanical performance. The market for aerospace composites, including ceramic fiber composites, is expected to grow at a significant rate in the coming years, driven by the increasing demand for lightweight and high-performance materials in aerospace and other industries.

"In terms of value, polymer matrix composites segment accounted for the largest share of the overall aerospace composites market."

The aerospace industry is a major driver for the growth of polymer matrix composites due to their exceptional properties. polymer matrix composites offer a lightweight alternative to traditional metals, resulting in increased fuel efficiency for aircraft. They also boast high strength and stiffness, crucial for parts that bear significant loads. Additionally, polymer matrix composites demonstrate good fatigue resistance and damage tolerance, essential for enduring the constant stresses of flight. These characteristics, coupled with their ability to be formed into complex shapes, make polymer matrix composites a perfect fit for the demanding needs of modern aerospace applications.

"In terms of value, lay-up manufacturing process segment accounted for the third largest share of the overall aerospace composites market."

In 2023, the lay-up manufacturing process segment accounted for the third largest share of the aerospace composites market, in terms of value. The lay-up manufacturing process is a traditional method used in the aerospace composites market for the fabrication of composite parts. The lay-up process is widely used in the aerospace industry due to its flexibility in producing complex shapes and its ability to accommodate various fiber architectures, making it suitable for manufacturing aircraft components.

"During the forecast period, the aerospace composites market in Europe region is projected to be the second largest region." The increasing demand for aerospace composites in Europe is fueled by factors such as rising investment in performance aerospace material research and development, as well as increased spending on space exploration operations. The expansion of the tourism industry in the region is also projected to boost market growth, as commercial aircraft production increases to meet the rising demand for air travel. Europe's aerospace composites market is supported by the presence of key players in the region and several research and development facilities dedicated to creating novel and cutting-edge composite materials. This infrastructure contributes to the growth of the aerospace composites market in Europe.

This study has been validated through primary interviews with industry experts globally. These primary sources have been divided into the following three categories:

-[]By Company Type- Tier 1- 40%, Tier 2- 33%, and Tier 3- 27%

- By Designation- C Level- 50%, Director Level- 30%, and Others- 20%

-[]By Region- North America- 15%, Europe- 50%, Asia Pacific- 20%, Middle East & Africa (MEA)-5%, Latin America- 10% The report provides a comprehensive analysis of company profiles:

Prominent companies include Solvay (Belgium), Toray Industries, Inc. (Japan), Mitsubishi Chemical Group Corporation (Japan), Hexcel Corporation (US), Teijin Limited (Japan), SGL Carbon (Germany), Spirit AeroSystems (US), Materion Corporation (US), Lee Aerospace (US), General Dynamics Corporation (US), Absolute Composites (India), FDC Composites Inc. (Canada), Avior Produits Integres Inc. (Canada), Collins Aerospace (US), Aernnova Aerospace S.A (Spain). Research Coverage

This research report categorizes the Aerospace Composites Market By Fiber Type (Glass Fiber, Carbon Fiber, Ceramic Fiber and Others), By Matrix Type (Polymer Matrix Composite, Metal Matrix Composite, Ceramic Matrix Composite), By Manufacturing Process (AFP/ATL, Lay-up, Resin transfer molding, Filament Winding, Others), By Aircraft Type (Commercial, Business & General, Civil Helicopter, Military Aircraft, Others), Applications (Interior, Exterior) and region (North America, Europe, Asia Pacific, the Middle East & Africa, and Latin America). The scope of the report includes detailed information about the major factors influencing the growth of the aerospace composites market, such as drivers, restraints, challenges, and opportunities. A thorough examination of the key industry players has been conducted in order to provide insights into their business overview, solutions, and services, key strategies, contracts, partnerships, and agreements. New product and service launches, mergers and acquisitions, and recent developments in the aerospace composites market are all covered. This report includes a competitive analysis of upcoming startups in the aerospace composites market ecosystem. Reasons to buy this report:

The report will help the market leaders/new entrants in this market with information on the closest approximations of the revenue numbers for the overall aerospace composites market and the subsegments. This report will help stakeholders understand the competitive landscape and gain more insights to position their businesses better and plan suitable go-to-market strategies. The report also helps stakeholders understand the pulse of the market and provides them with information on key market drivers, restraints, challenges, and opportunities.

The report provides insights on the following pointers:

- Analysis of key drivers (The superior performance properties of composites have led to a high demand from the aerospace

industry, The increasing number of commercial and defense aircraft worldwide has significantly contributed to the growth of the aerospace composites market), restraints (Recycling of composite materials, global trade war escalations), opportunities (Reduction in cost of carbon fiber, Development of advanced software tools for aerospace composites, Increased demand for Commercial Aircraft), and challenges (Maintaining uninterrupted supply chain and operating at full production capacity, liquidity crunch) influencing the growth of the aerospace composites market

- Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product & service launches in the aerospace composites market

- Market Development: Comprehensive information about lucrative markets - the report analyses the aerospace composites market across varied regions.

- Market Diversification: Exhaustive information about new products & services, untapped geographies, recent developments, and investments in the aerospace composites market

- Competitive Assessment: In-depth assessment of market shares, growth strategies and service offerings of leading players like Solvay (Belgium), Toray Industries, Inc. (Japan), Mitsubishi Chemical Group Corporation (Japan), Hexcel Corporation (US), Teijin Limited (Japan), SGL Carbon (Germany), Spirit AeroSystems (US), Materion Corporation (US), Lee Aerospace (US), General Dynamics Corporation (US), Absolute Composites (India), FDC Composites Inc. (Canada), Avior Produits Integres Inc. (Canada), Collins Aerospace (US), Aernnova Aerospace S.A (Spain), among others in the aerospace composites market.

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