

Aerospace Composites Market Size & Share Analysis - Growth Trends and Forecast (2026 - 2031)

> **Industry:** Space Economy, Satellites & Propulsion (Aerospace & Defense)
> **Source:** https://www.mordorintelligence.com/industry-reports/aerospace-composites-market
> **Scraped Date:** 2026-09-17

Executive Market Summary

Market Metric	Details
Base Market Size	USD 63.22 billion
Projected Forecast (2031)	USD 63.22 billion
Growth Rate (CAGR)	10.25 %
Largest Market Region	N/A
Fastest-Growing Region	N/A

Market Visualizations & Infographics

! [Major players in Aerospace Composites industry] (images/chart_2.png)

! [Aerospace Composites Market Size] (images/chart_3.png)

! [Aerospace Composites Market Share by Fiber Type, 2025] (images/chart_4.png)

! [Aerospace Composites Market Share by Structural Component, 2025] (images/chart_5.png)

! [Aerospace Composites Market Growth Rate by Region] (images/chart_6.png)

! [Aerospace Composites Market Concentration] (images/chart_7.png)

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Comprehensive Research Analysis

Overview Points List Flex 49 Share Feature End

Market OverviewStudy Period | 2020 - 2031 |
Market Size (2026) | USD 38.79 Billion |
Market Size (2031) | USD 63.22 Billion |
Growth Rate (2026 - 2031) | 10.25 % |
Fastest Growing Market | Asia Pacific |
Largest Market | North America |
Market Concentration | Medium |
Major Players*Disclaimer: Major Players sorted in no particular order

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Market Overview

Aerospace Composites Market Analysis by Mordor Intelligence The aerospace composites market size is expected to grow from USD 35.18 billion in 2025 to USD 38.79 billion in 2026 and is forecast to reach USD 63.22 billion by 2031 at 10.25% CAGR over 2026-2031. Strong demand for lightweight structures that enhance fuel efficiency, expanding hypersonic programs, and the growing need for recyclable materials are the central forces shaping the market. Automated fiber placement (AFP) systems delivering 4–8 times higher throughput than legacy lay-up lines, the rapid uptake of thermoplastics in single-aisle backlogs, and fleet electrification requirements for high-temperature parts are among the most influential growth drivers. Major aircraft OEMs vertically integrate composite production to control quality and cost, intensifying supplier competition and accelerating qualification cycles for novel resins. Asia's expanding manufacturing base and rising investments in electric propulsion are turning the region into the fastest-growing hub in the market.

Key Report Takeaways* By fiber type, carbon fiber held 52.08% of the aerospace composites market share in 2025, while ceramic fiber is forecast to expand at a 10.74% CAGR through 2031.

* By resin type, thermosets led with 45.73% revenue share in 2025, but thermoplastics are advancing at a 13.22% CAGR to 2031.

* By manufacturing process, prepreg lay-up accounted for a 44.25% share in 2025; AFP registered the fastest growth at a 12.76% CAGR, supporting growth in the aerospace composites market.

* By aircraft type, commercial narrow-body aircraft captured 38.02% of the market size in 2025, whereas spacecraft/launch vehicles are expected to grow at a 14.41% CAGR.

* By structural component, exterior and airframe parts represented a 49.96% share of the market in 2025; engine parts are growing the quickest at a 17.12% CAGR, supporting growth in the aerospace composites market.

* By end-user, OEMs dominated with an 79.88% share in 2025, while the aftermarket/MRO segment is projected to rise at 8.74% CAGR.

* By region, North America held 29.71% of global revenue in 2025; the Asia-Pacific region is poised for a 10.30% CAGR through 2031, supporting growth in the aerospace composites market.

Key Market Trends

Market Trends and Insights Drivers Impact Analysis of Aerospace Composites Market

*Driver | (~) % Impact on CAGR Forecast | Geographic Relevance | Impact Timeline

Rapid adoption of thermoplastic composites to accelerate production rates of single-aisle programs (Europe-led) | +2.5% | Europe-led global | Medium term (2-4 years) |

Increasing penetration of carbon fiber in next-gen narrow-body wings in North America | +1.8% | North America, Europe | Medium term (2-4 years) |

Fleet electrification and more-electric aircraft (MEA) driving high-temperature composite demand in Asia | +1.2% | Asia, global | Medium term (2-4 years) |

Space-launch commercialization boosting demand for lightweight composite structures | +2.0% | US, China, global | Short term (≤2 years) |

Military stealth programs propelling ceramic-matrix composite uptake in hypersonic applications | +1.5% | US, China, Russia | Medium term (2-4 years) |

OEM sustainability targets pushing recyclable composite solutions | +1.0% | Europe-led global | Long term (≥5 years) |

Source: Mordor Intelligence |

Competitive Landscape

Competitive Landscape

The aerospace composites market shows moderate concentration. Toray dominates in intermediate-modulus carbon fiber supply, while Hexcel and Solvay leverage integrated prepreg and honeycomb offerings. Hexcel's 2024 sales of USD 1.903 billion marked an 11.8% rise in commercial aerospace revenue.

OEM vertical integration is intensifying. Airbus is co-developing thermoplastic ribs with Stelia, and Boeing's Charleston out-of-autoclave center fabricates B787 skin panels in-house. To maintain share, material firms are forming alliances—Arkema-Hexcel for PEKK tapes and Solvay-Safran for resin transfer-molded fan blades.

Strategic mergers and acquisitions are accelerating. Kinenco's full acquisition of Kinenco Kaman Composites India boosts its defense footprint, while Daikin's stake in Advanced Composite Corporation enhances resin chemistries for thermoplastic fuselages. Investment in AFP, CMC capacity, and recycling plants remains a priority as companies target differentiated positions within the aerospace composites industry.

Aerospace Composites Industry Leaders* Hexcel Corporation

- * Solvay
- * SGL Carbon
- * Mitsubishi Chemical Carbon Fiber and Composites, Inc. (Mitsubishi Chemical Group Corporation)
- * Toray Industries, Inc.

* *Disclaimer: Major Players sorted in no particular order
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Scope Methodology P Space

This market covers composite materials and finished composite parts used in aerospace platforms, including structural and interior uses, where the output enters the aerospace manufacturing supply chain in value terms.

Scope exclusions: repair kits, scrap, and composites made mainly for non-aerospace end uses (such as automotive, marine, or wind) are not counted.

Segmentation Container

- * By Fiber Type* Glass Fiber
- * Carbon Fiber
- * Ceramic Fiber
- * Aramid Fiber
- * Other Fiber Types
- * By Resin Type* Thermoset Composites
- * Thermoplastic Composites
- * By Manufacturing Process* Lay-Up (Hand and Automated)
- * Resin Transfer Molding (RTM)
- * Filament Winding
- * Injection/Compression Molding
- * Automated Fiber Placement and Tape Laying
- * Additive Manufacturing of Composites

- * By Aircraft Type* Commercial Aircraft* Narrow-Body
- * Wide-Body
- * Regional Jets
- * Freighters
- * Business Jets
- * Military Aircraft* Fighter Jets
- * Transport and Tanker
- * Rotorcraft
- * Helicopters
- * Spacecraft and Launch Vehicles
- * By Structural Component* Interior Components
- * Exterior and Airframe
- * Engine Components
- * Auxiliary Structures
- * By End-User* OEM
- * Aftermarket/MRO
- * By Geography* North America* United States
- * Canada
- * Mexico
- * Europe* United Kingdom
- * Germany
- * France
- * Rest of Europe
- * Asia-Pacific* China
- * Japan
- * India
- * South Korea
- * Rest of Asia-Pacific
- * South America* Brazil
- * Rest of South America
- * Middle East and Africa* Middle East* Saudi Arabia
- * United Arab Emirates
- * Rest of Middle East
- * Africa* South Africa
- * Rest of Africa

Frequently Asked Questions

What is the projected size of the aerospace composites market by 2031?

The aerospace composites market is forecast to reach USD 63.22 billion by 2031, growing at a 10.25% CAGR.

Which composite material is growing the fastest in aerospace applications?

Thermoplastic composites are expanding at a 13.22% CAGR due to 80% cycle-time reductions and near-100% recyclability.

Why are ceramic matrix composites important for future engines?

CMCs withstand temperatures above 1,200°C, enabling hotter, more efficient turbines that cut fuel burn and emissions.

Which aircraft segment offers the highest growth for composites?

Spacecraft and launch vehicles lead with a 14.41% CAGR as reusable rockets and satellite constellations drive lightweight-structure demand.

How are OEM sustainability goals influencing material choices?

Targets to reduce life-cycle emissions are accelerating adoption of bio-derived fibers, recyclable thermoplastics and closed-loop carbon-fiber recycling.

What role does AFP technology play in meeting production backlogs?

Automated fiber placement boosts throughput by up to 8-times and reduces labor, enabling OEMs to clear single-aisle order backlogs efficiently.