

Carbon Fiber Reinforced Plastic (CFRP) Market Size & Share Analysis - Growth Trends and Forecast (2026 - 2031)

> ****Industry:**** Advanced Materials & Composites (Chemicals & Materials)
> ****Source:**** <https://www.mordorintelligence.com/industry-reports/carbon-fiber-reinforced-plastic-market>
> ****Scraped Date:**** 2026-09-17

Executive Market Summary

Market Metric	Details
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Base Market Size	USD 22.72 billion
Projected Forecast (2031)	USD 22.72 billion
Growth Rate (CAGR)	7.26 %
Largest Market Region	N/A
Fastest-Growing Region	N/A

Market Visualizations & Infographics

![Major players in Carbon Fiber Reinforced Plastic (CFRP) industry](images/chart_2.png)

![Carbon Fiber Reinforced Plastic (CFRP) Market (2025 - 2030)](images/chart_3.png)

![Carbon Fiber Reinforced Plastic (CFRP) Market: Market Share by Resin Type, 2025](images/chart_4.png)

![Carbon Fiber Reinforced Plastic (CFRP) Market: Market Share by End-user Industry, 2025](images/chart_5.png)

![Carbon Fiber Reinforced Plastic (CFRP) Market CAGR (%), Growth Rate by Region](images/chart_6.png)

![Carbon Fiber Reinforced Plastic (CFRP) Market - Market Concentration](images/chart_7.png)

![Icon](images/chart_8.png)

![footer background image](images/chart_10.png)

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![GPTW](images/chart_19.png)

Comprehensive Research Analysis

Overview Points List Flex 49 Share Feature End

Market Overview

Study Period | 2020 - 2031 |
Market Size (2026) | USD 22.72 Billion |

Market Size (2031) | USD 32.25 Billion |
Growth Rate (2026 - 2031) | 7.26 % |
Fastest Growing Market | Asia Pacific |
Largest Market | Asia Pacific |
Market Concentration | Medium |
Major Players*Disclaimer: Major Players sorted in no particular order

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Market Overview

Carbon Fiber Reinforced Plastic (CFRP) Market Analysis by Mordor IntelligenceThe Carbon Fiber Reinforced Plastic Market size was valued at USD 21.18 billion in 2025 and estimated to grow from USD 22.72 billion in 2026 to reach USD 32.25 billion by 2031, at a CAGR of 7.26% during the forecast period (2026-2031). The growth mirrors the material’s journey from niche aerospace uses to mainstream industrial adoption as designers try to trim weight while safeguarding structural strength. Tighter sustainability rules, the electrification wave in transport, and the need for durable lightweight parts across renewable-energy infrastructure jointly advance the carbon fiber reinforced plastic market. Leading suppliers have shifted investment from pure fiber capacity to downstream processing, recycling, and circular-economy solutions that deepen customer integration. Meanwhile, capacity expansions in China and alternative precursor research in the United States shape a supply chain increasingly defined by security of supply rather than headline tonnage.

Key Report Takeaways

- * By resin type, thermoset systems commanded 72.15% share of the carbon fiber reinforced plastic market size in 2025; thermoplastic variants record the highest 8.02% CAGR through 2031.
- * By raw-material precursor, PAN fibers represented 94.75% of the carbon fiber reinforced plastic market size in 2025, while rayon-based fibers lead growth at an 8.31% CAGR to 2031.
- * By end-use industry, aerospace held 43.70% of the carbon fiber reinforced plastic market share in 2025, whereas automotive is projected to expand at an 8.61% CAGR to 2031.
- * By geography, Asia-Pacific occupied 42.05% revenue share in 2025 and is advancing at an 8.43% CAGR through 2031.

Key Market Trends

Global Carbon Fiber Reinforced Plastic (CFRP) Market Trends and InsightsDrivers Impact Analysis*

Driver	(~) % Impact on CAGR Forecast	Geographic Relevance	Impact Timeline
Surge in commercial aircraft backlog	+1.8%	Global, concentrated in North America & Europe	Long term (≥ 4 years)
Electrification accelerating CFRP battery enclosures	+2.1%	Global, led by China & North America	Medium term (2-4 years)
Mega-blade wind turbines (>100 m) adopting CFRP spar caps	+1.5%	APAC core, spill-over to Europe & North America	Medium term (2-4 years)
Hydrogen mobility pressure-vessel build-out	+1.2%	Europe & North America, expanding to APAC	Long term (≥ 4 years)
eVTOL & urban-air-mobility platforms favouring thermoplastic CFRP	+0.6%	North America & Europe, early adoption in China	Long term (≥ 4 years)
Closed-loop recycling unlocking low-cost rCF	+0.8%	Global, regulatory-driven in Europe	Medium term (2-4 years)

Source: Mordor Intelligence |

Competitive Landscape

Competitive Landscape

The carbon fiber market exhibits moderate concentration, with the presence of major players, including Toray Industries Inc., Hexcel Corporation, SGL Carbon, Mitsubishi Chemical Group, and Teijin Limited. Toray's decade-long Boeing fiber pact secures high-volume orders, while the company adds lines in California and Europe to serve industrial outlets. Hexcel concentrates on resin-film infusion and 3D-weaving, letting customers integrate value-added parts rather than raw fabrics. However, Mitsubishi Chemical advanced with ceramic-matrix composites for extreme-temperature space uses.

Carbon Fiber Reinforced Plastic (CFRP) Industry Leaders* Toray Industries Inc.

* Hexcel Corporation

* SGL Carbon

* Mitsubishi Chemical Group

* Teijin Limited

* *Disclaimer: Major Players sorted in no particular order

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Component Component 3 Scope Of The Report Bottom

Global Carbon Fiber Reinforced Plastic (CFRP) Market Report ScopeCarbon fiber-reinforced plastic is a polymer matrix composite material reinforced by carbon fibers. It is majorly used in the manufacturing of aircraft and rockets, as it increases fuel efficiency and reduces the weight of the aircraft body. Resin, end-user industry, and geography segment the market. By resin type, the market is segmented into thermosetting CFRPs and thermoplastic CFRPs. The market is segmented by end-user industries: aerospace, automotive, sports and leisure, building and construction, wind power industry, and other end-user industries. The report also covers the market size and forecasts for the carbon fiber reinforced plastic (CFRP) market in 15 countries across major regions. For each segment, the market sizing and forecasts have been done based on revenue (USD million).

By Resin TypeThermoset Carbon Fiber Reinforced Plastics (CFRP) |
Thermoplastic Carbon Fiber Reinforced Plastics (CFRP) |

Segmentation Accordion Item

By GeographyNorth America | United States |

| Canada |

| Mexico |

South America | Brazil |

| Argentina |

| Rest of South America |

Europe | Germany |

| United Kingdom |

| France |

| Italy |

| Spain |

| Russia |

| Rest of Europe |

Asia-Pacific | China |

| Japan |

| South Korea |

- | India |
- | Rest of Asia-Pacific |
- Middle East and Africa | Saudi Arabia |
- | United Arab Emirates |
- | South Africa |
- | Rest of Middle East and Africa |

Frequently Asked Questions

What is the current size of the Carbon Fiber Reinforced Plastic Market?

The market size is estimated at USD 22.72 billion in 2026 and is projected to reach USD 32.25 billion by 2031.

Which sector will contribute most to future growth of the carbon fiber reinforced plastic market?

Automotive applications, led by electric-vehicle battery enclosures, are poised to grow at 8.61% CAGR through 2031.

How important is Asia-Pacific in the carbon fiber reinforced plastic market?

The region already commands 42.05% revenue share and shows the fastest 8.43% CAGR due to China's massive wind-energy and EV programs.

Why are thermoplastic composites gaining share in the carbon fiber reinforced plastic market?

They allow fast, weldable processing and recyclability, helping OEMs meet cost and sustainability targets while trimming assembly cycle times.

What challenges limit wider adoption of carbon fiber in cost-sensitive industries?

High prices for aerospace-grade PAN precursor and occasional industrial-fiber capacity bottlenecks remain key obstacles.