

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

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

Executive Market Summary

Market Metric	Details
Base Market Size	USD 224.62 million
Projected Forecast (2031)	USD 224.62 million
Growth Rate (CAGR)	13.71 %
Largest Market Region	N/A
Fastest-Growing Region	N/A

Market Visualizations & Infographics

- ! [Major players in Recycled Carbon Fiber industry](images/chart_2.png)
- ! [Recycled Carbon Fiber Market Size](images/chart_3.png)
- ! [Recycled Carbon Fiber Market Share by Product Type, 2025](images/chart_4.png)
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Comprehensive Research Analysis

Overview Points List Flex 49 Share Feature End

Market OverviewStudy Period | 2021 - 2031 |
Market Size (2026) | USD 224.62 Million |
Market Size (2031) | USD 427 Million |
Growth Rate (2026 - 2031) | 13.71 % |
Fastest Growing Market | Europe |
Largest Market | North America |
Market Concentration | Medium |
Major Players*Disclaimer: Major Players sorted in no particular order

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Market Overview

Recycled Carbon Fiber Market Analysis by Mordor Intelligence
The Recycled Carbon Fiber Market size was valued at USD 197.53 million in 2025 and is estimated to grow from USD 224.62 million in 2026 to reach USD 427 million by 2031, at a CAGR of 13.71% during the forecast period (2026-2031). Demand is rising as aerospace and automotive manufacturers race to cut embodied carbon while safeguarding the stiffness-to-weight ratio that virgin fiber provides. Chopped grades dominate because they drop straight into injection and compression molding lines already qualified for glass fiber. At the same time, energy-positive pyrolysis plants are driving processing costs below USD 8 per kilogram and pushing recycled carbon fiber market adoption into high-volume platforms. Net-zero commitments, Extended Producer Responsibility rules, and decommissioned wind-turbine blades are converging to secure a predictable scrap supply that tempers price volatility and underpins multi-year offtake contracts with OEMs.

Key Report Takeaways* By product type, chopped recycled carbon fiber led with 61.65% revenue share in 2025 and is forecast to expand at a 13.91% CAGR through 2031.

* By source, aerospace scrap captured 45.82% of the recycled carbon fiber market share in 2025, and the same segment is projected to grow at a 14.44% CAGR through 2031.

* By the recycling process, pyrolysis controlled 70.45% of the market in 2025, while solvolysis records the highest projected CAGR at 15.66% to 2031.

* By matrix, thermoset composites accounted for 67.29% of the recycled carbon fiber market size in 2025; thermoplastic composites are advancing at a 15.08% CAGR through 2031.

* By end-user industry, recycled carbon fiber market share was dominated by aerospace and defense dominated with at a 37.01% share in 2025; automotive is expected to post the fastest 14.82% CAGR to 2031.

* By region, the recycled carbon fiber market in North America held a 38.15% share in 2025; Europe is poised to expand at a 14.99% CAGR through 2031.

Key Market Trends

Market Trends and Insights
Drivers Impact Analysis of Recycled Carbon Fiber Market*
Driver | (~) % Impact on CAGR Forecast | Geographic Relevance | Impact Timeline |

Circular-economy mandates in Europe and America | +2.8% | Europe (Germany, France, UK), North America (US, Canada) | Medium term (2-4 years) |

OEM net-zero targets boosting rCF content in EVs | +3.2% | Global, with concentration in Europe and North America | Long term (≥ 4 years) |

End-of-life wind-turbine blades creating high-grade scrap | +2.1% | Europe (Nordic countries, Germany, Spain), North America | Medium term (2-4 years) |

Accelerating aircraft retirements in Asia-Pacific unlocking aerospace scrap | +2.5% | Asia-Pacific (China, Japan, South Korea), spill-over to North America | Short term (≤ 2 years) |

Break-even cost parity as energy-positive pyrolysis plants scale | +3.1% | Global, early adoption in North America and Europe | Long term (≥ 4 years) |

Source: Mordor Intelligence |

Competitive Landscape

Competitive Landscape

The Recycled Carbon Fiber market shows moderate concentration. Technology leadership is tightening competitive gaps. Vartega's energy-positive plant sells 1.8 MWh surplus electricity per ton into Colorado's grid, while Carbon Fiber Remanufa

cturing filed a two-stage pyrolysis patent that restores surface energy via plasma treatment, chasing tensile properties near virgin T700. White-space persists in thermoplastic-composite recycling and additive manufacturing. Start-ups are developing bio-based resins that simplify end-of-life separation, and digital platforms are emerging to coordinate scrap pickups, lowering rejection rates.

Recycled Carbon Fiber Industry Leaders* Carbon Conversions

- * Gen 2 Carbon Limited
- * TORAY INDUSTRIES, INC.
- * Mitsubishi Chemical Group Corporation
- * SGL Carbon

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

We define the recycled carbon fiber market as the value of carbon fiber recovered from waste streams, processed into usable fiber forms, and sold for making new parts and products across industries.

Scope exclusions: This sizing excludes carbon black style additives, fibers only recovered as furnace residue, and simple reuse of uncured prepreg scrap without a recycling conversion step.

Segmentation Container

- * By Product Type* Chopped Recycled Carbon Fiber
- * Milled Recycled Carbon Fiber
- * By Source* Aerospace Scrap
- * Automotive Scrap
- * Other Sources
- * By Recycling Process* Pyrolysis
- * Solvolysis / Chemical Recycling
- * Mechanical Shredding and Milling
- * By Matrix Compatibility* Thermoset Composites
- * Thermoplastic Composites
- * By End-user Industry* Automotive
- * Aerospace and Defense
- * Wind Energy
- * Sporting Goods
- * Others
- * By Geography* Asia* China
- * Japan
- * India
- * South Korea
- * Southeast Asia
- * Rest of Asia
- * North America* United States
- * Canada
- * Mexico

- * Europe* Germany
- * United Kingdom
- * France
- * Italy
- * Spain
- * Nordic Countries
- * Rest of Europe

- * South America* Brazil
- * Argentina
- * Rest of South America

- * Middle-East and Africa* Saudi Arabia
- * United Arab Emirates
- * South Africa
- * Rest of Middle-East and Africa

Frequently Asked Questions

How large is the recycled carbon fiber market in 2026?

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Which end-user sector is growing fastest for recycled carbon fiber?

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Why does aerospace scrap command a premium?

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Which recycling process in the recycled carbon fiber market is gaining share over the forecast period?

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