Automotive Composites Market Set to Reach USD 33.27 Billion by 2035, Propelled by Lightweight & Electrification Trends

The automotive composites market is growing rapidly, driven by lightweighting, EV adoption, and demand for high-performance, sustainable materials.

Automotive Composites Market

NEWARK, DE, UNITED STATES, May 7, 2025 /EINPresswire.com/ -- The automotive composites market is projected to grow significantly from USD 10,430.1 million in 2025 to USD 33,272.5 million by 2035, registering a strong CAGR of 12.3%. This rapid expansion is fueled by the automotive sector's urgent shift toward lightweight materials to meet emissions regulations and efficiency standards, especially amid rising demand for electric and hybrid vehicles. Composites—such as carbon fiber-reinforced polymers (CFRP), glass fiber-reinforced polymers (GFRP), and natural fiber composites—are emerging as preferred alternatives to traditional metals. Their ability to reduce vehicle weight without compromising safety or performance is enabling automakers to push the boundaries of design, energy efficiency, and structural integrity.

> “Lightweighting isn’t just a trend — it’s a necessity. Automotive composites are redefining vehicle performance, efficiency, and sustainability for the road ahead.”
>
> *Nikhil Kaitwade*

As global regulations tighten around carbon emissions and fuel economy, automotive OEMs are increasingly integrating composites in structural and non-structural vehicle components, including body panels, chassis parts, bumpers, and battery enclosures. These materials offer high strength-to-weight ratios, corrosion resistance, and design flexibility, making them especially valuable in electric vehicles, where weight reduction translates directly to extended driving range and reduced battery size. The growing trend of vehicle electrification is further amplifying composite material use, as OEMs aim to balance performance, sustainability, and safety standards within lightweight design strategies.

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Key Takeaways for the Automotive Composites Market

The automotive composites market is on a strong upward trajectory, driven by the auto industry's push for fuel-efficient and lightweight solutions. A significant CAGR of 12.3% from 2025 to 2035 reflects increasing integration of advanced materials across EVs and high-performance vehicles. Manufacturers are increasingly replacing steel and aluminum with CFRPs, GFRPs, and hybrid composites to meet performance and regulatory goals. Composite materials are enabling OEMs to create innovative designs while supporting sustainability objectives in next-generation mobility platforms.

Emerging Trends in the Global Market

One of the most prominent trends in the automotive composites market is the shift from traditional thermoset to thermoplastic composites, which offer shorter production cycles, recyclability, and improved toughness. This transition is particularly beneficial for mass production applications in passenger cars, as thermoplastic composites are well-suited for automated processes and faster part assembly.

There is also a growing interest in hybrid composites that combine multiple fiber types to optimize mechanical performance and reduce overall material costs. These hybrid configurations are becoming especially popular in structural components where both flexibility and strength are required. Additionally, bio-based composites and natural fiber-reinforced plastics are gaining momentum in sustainability-conscious markets such as Europe, where end-of-life recyclability and carbon footprint reduction are becoming key procurement considerations for OEMs.

Significant Developments in the Global Sector: Trends and Opportunities in the Market

Opportunities in the automotive composites market are growing across multiple fronts. Lightweighting remains the primary driver, especially in electric vehicles where range and efficiency are paramount. Battery enclosures, underbody shields, and structural supports are now commonly produced with high-performance composites, offering superior thermal management and impact resistance compared to conventional metals.

Another significant development is the integration of smart materials with composite architectures. Research is advancing into multifunctional composites that incorporate embedded sensors and actuators, allowing real-time structural health monitoring and enhanced system integration. OEMs and suppliers are also collaborating on innovations in resin systems, such as fast-curing epoxies and recyclable thermosets, to meet high-throughput manufacturing

requirements while aligning with circular economy goals.

Recent Developments in the Market

The automotive composites market has witnessed several key advancements in recent years. In 2024, Toray Industries launched a new high-toughness carbon fiber prepreg system designed specifically for EV battery enclosures and side-impact structures. SGL Carbon has expanded its lightweight material offerings with next-generation glass fiber composites tailored for underbody components and modular architecture platforms.

Hexcel Corporation and Solvay have entered into strategic partnerships with major automakers to supply advanced thermoplastic composites for exterior and interior structural applications. Meanwhile, startups in Europe and North America are introducing novel bio-composite formulations that combine agricultural waste materials with industrial polymers, gaining traction among EV brands focused on eco-conscious product development.

Thorough Market Evaluation: Full Report
https://www.futuremarketinsights.com/reports/automotive-composites-market

Competition Outlook

The automotive composites market is moderately consolidated, with a mix of global material suppliers, technology innovators, and automotive OEMs actively shaping the competitive landscape. Leading companies are focused on R&D investments, product innovations, and strategic partnerships to deliver scalable, cost-effective, and sustainable composite solutions. Market participants are also expanding manufacturing capacity to meet growing demand from OEMs across Europe, North America, and Asia-Pacific.

Key players in the market include Toray Industries Inc., SGL Carbon SE, Teijin Limited, Hexcel Corporation, Mitsubishi Chemical Holdings Corporation, Owens Corning, Solvay SA, Gurit Holding AG, UFP Technologies Inc., and BASF SE. These companies are at the forefront of developing lightweight and high-strength composite solutions tailored to emerging automotive platforms, particularly EVs and autonomous vehicles.

Key Segmentations

By material type, the market is segmented into carbon fiber composites, glass fiber composites, and natural fiber composites. Carbon fiber composites dominate in high-performance and premium segments, while glass fiber composites are widely used in mass-market applications due to their cost-effectiveness and versatility.

By resin type, key categories include thermoset and thermoplastic composites. Thermoset composites continue to lead in structural applications, but thermoplastics are gaining share in

components requiring recyclability and rapid production cycles.

By application, the major segments include structural components, powertrain components, interior parts, exterior parts, and battery enclosures. Structural and battery components are experiencing the fastest growth due to the electrification trend and the need for crash-resistant yet lightweight solutions.

By vehicle type, the market spans passenger cars, light commercial vehicles, and heavy commercial vehicles. Passenger cars, especially electric and hybrid models, constitute the largest segment, driven by growing consumer demand for fuel-efficient, high-performance, and sustainable vehicles.

Automotive Structural Components Industry Analysis Reports

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