

Composites Market by Fiber Type (Glass Fiber Composites, Carbon Fiber Composites, Natural Fiber Composites), Resin Type (Thermoset Composites, Thermoplastic Composites), Manufacturing Process, End-use Industry and Region - Global Forecast to 2027

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Report description:

The global composites market size is projected to grow from USD 113.6 billion in 2022 to USD 168.6 billion by 2027, at a CAGR of 8.2% between 2022 and 2027. Composites have outstanding qualities like as stiffness, strength, tenacity, density, thermal and electrical conductivity, fatigue resistance, and corrosion resistance. In light of the characteristics delivered by composites, traditional materials like aluminum steel are becoming less popular for high-performance applications.

"Carbon fiber composites are the fastest-growing fiber type of composites market in terms of value."

Carbon fiber composites are projected to register the highest CAGR in terms of value between 2022 and 2027. Carbon fiber is twice as strong and 30% lighter than glass fiber and used in several end-use industries. In the automotive industry, carbon fiber-reinforced composites were first used in racing cars to reduce the vehicle's weight and are essential as a high-strength high-rigidity material for the monocoque frame to ensure the driver's safety. In F1 racing cars, carbon fiber-reinforced composites are used for all structural components.

"Thermoplastic composites is the fastest-growing resin type of composites, in terms of value."

Thermoplastic composites are the fastest-growing resin type. The application of thermoplastic resins as a matrix material in fiber-reinforced composites has increased significantly in recent years. Thermoplastic resin has been used with continuous fiber to create structural composite products. The main advantage of this resin as a matrix material is that the composite formed can be reshaped and reformed, unlike thermoset resin. The composite formed is easily recyclable, and its use has increased significantly in the last decade.

"Resin Transfer Molding (RTM) manufacturing process is the fastest-growing manufacturing process of composites, in terms of

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value."

RTM employs a flexible solid counter tool to compress the surface during the vacuum-assisted resin transfer process. This technique results in improved strength-to-weight ratios, higher laminate compression, and high glass to resin ratios. Large-surface-area, intricately shaped, and well-finished parts are the most common kind of components it is used to mold. This process is used to produce structures for automotive, construction and infrastructure, and aerospace applications. The growth prospects of the RTM process are high in the next five years due to increasing applications in the automotive and construction industries in emerging countries.

"Wind energy is the fastest-growing end-use industry of composites, in terms of value."

Wind energy is predicted to expand with the fastest CAGR for the next five years. Great tensile strength provided by composite materials used in wind turbine construction enables manufacturers to achieve huge blades and high energy output. The volume of fiber reinforcement used in the wind blades accounts for about 70-75% by weight infused with epoxy or unsaturated polymer resins. Fiberglass also provides high tensile strength, helping manufacturers to achieve larger blades and higher energy output. Fiberglass has helped the wind energy industry grow by allowing wind turbines to work in the toughest environments due to its corrosion resistance properties.

"Asia Pacific is the fastest-growing composites market."

In terms of value, the composites sector is predicted to exhibit the highest CAGR in Asia Pacific over the next five years. The region has huge growth potential for the electrical & electronics industry growth. The continuous rise in technologically advanced electronic products has resulted in high demand for lightweight and high-strength electronic products. This increasing demand for technologically advanced electronic products for various applications has led to innovations and developments in the composites industry of Asia Pacific.

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

- By Company Type Tier 1- 37%, Tier 2- 33%, and Tier 3- 30%
- By Designation C Level- 50%, Director Level- 20%, and Others- 30%
- By Region Europe- 50%, Asia Pacific- 20%, North America- 15%, Middle East & Africa (MEA)-10%, South America-5% The report provides a comprehensive analysis of company profiles listed below:
- ☐Owens Corning (US)
- Toray Industries, Inc. (Japan)
- Teijin Limited (Japan)
- -□ Mitsubishi Chemical Holdings Corporation (Japan)
- -□ Hexcel Corporation (US)
- -□ SGL Group (Germany)
- -□Nippon Electric Glass Co. Ltd. (Japan)
- Huntsman International LLC. (US)
- -∏Solvay S.A. (Belgium)

Research Coverage

This report covers the global composites market and forecasts the market size until 2027. The report includes the market segmentation - Fiber Type (Glass Fiber Composites, Carbon Fiber Composites, Natural Fiber Composites, and Other), Resin Type (Thermoset Composites and Thermoplastic Composites), Manufacturing process (Lay-up, filament winding, injection molding, pultrusion, compression molding, RTM, and others), End-use Industry (Aerospace & Defense, Wind Energy, Automotive & Transportation, Construction & Infrastructure, Marine, Pipes & Tanks, Electrical & Electronics, and Others) and Region (Europe, North America, Asia Pacific, South America, and Middle East & Africa). Porter's Five Forces analysis, along with the drivers, restraints, opportunities, and challenges, are discussed in the report. It also provides company profiles and competitive strategies adopted by the major players in the global composites market. Key benefits of buying the report:

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The report will help market leaders/new entrants in this market in the following ways:

- 1. This report thoroughly classifies the global composites market and offers the most accurate estimates of revenues for both the overall market and the sub-segments across various industries and geographies.
- 2. The report gives information on crucial market drivers, constraints, challenges, and opportunities while also assisting stakeholders in understanding the composites industry's pulse.
- 3. This study will assist stakeholders in better-comprehending rivals and gaining more knowledge to strengthen their position in their market. The rival ecosystem, new product development, partnerships, and acquisitions are all included in the section on the competitive landscape.

Reasons to buy the report:

The report will help market leaders/new entrants in this market by providing them with the closest approximations of the revenues for the overall composites market and the sub-segments. This report will help stakeholders to understand the competitive landscape and gain more insights and position their businesses and market strategies in a better way. The report will also help stakeholders understand the pulse of the market and provide them with information on key market drivers, restraints, challenges, and opportunities.

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