

Carbon Fiber Market Poised For Significant Growth Owing to Rising Demand in Aerospace Industry

Market Overview

Carbon fiber, also known as graphite fiber, is a reinforcing material that is widely used to improve the strength and rigidity in plastics and composites. It has high tensile strength and stiffness and is extremely light in weight. Some key advantages of carbon fiber include corrosion resistance, high precision and accuracy applications, low thermal expansion, and strength-to-weight properties. Carbon fibers are finding increasing usage in the aerospace, defense, sports equipment, wind energy, civil engineering and pressure vessels industries due to their superior strength and stiffness and ability to withstand high temperatures.

Global Carbon Fiber Market is estimated to be valued at US\$ \$5.22 Bn in 2024 and is expected to exhibit a CAGR of 8.70% over the forecast period from 2024 to 2031.

Key Takeaways

Key players operating in the carbon fiber market are A Technology Inc., Anshan Sinocarb Carbon Fibers Co. Ltd, Dow Akso US LLC, Formosa Plastics Corporation,

Hexcel Corporation, Holding company Composite, Hyosung Advanced Materials, SGL

Carbon, Solvay, Teijin Limited. Carbon fibers have emerged as popular substitute for metals due to their strength and lightweight. Key end use industries driving demand for carbon fiber include aerospace, automotive, wind energy, sports equipment and civil engineering. Technological advancements in manufacturing processes have improved yields and reduced production costs, thereby accelerating carbon fiber adoption across various applications.

Market Trends

Increasing Usage in Commercial Aircrafts – Major aircraft OEMs are increasing the adoption of carbon fiber composites to manufacture lightweight and fuel efficient [Carbon Fiber Market Demand](#) structures. For instance, Boeing 787 Dreamliner's airframe contains over 50% carbon fiber reinforced polymers. This is a key trend driving growth of the carbon fiber market.

Demand from Electric Vehicles – With growing focus on reducing vehicular emissions, carbon fiber is increasingly being utilized by auto manufacturers to develop lightweight electric vehicles. The superior specific strength and stiffness properties of carbon fiber help enhance EV range.

Market Opportunities

Development of Low-cost Carbon Fiber – Startups and companies are working on breakthrough technologies to reduce manufacturing costs and make carbon fiber

more affordable for mass market applications. Innovation in precursor materials

