

Global High Performance Composites Market Size Study, By Resin Type (High Performance Thermoplastic & Thermoset Composites), Fiber Type (Carbon Fiber, Aramid Fiber, S-Glass), Applications, and Regional Forecasts 2022-2032

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Abstracts

The global high-performance composites market was valued at USD 60.9 billion in 2023 and is anticipated to grow at a CAGR of 9.1% during the forecast period, reaching USD 133.36 billion by 2032. The increasing demand for advanced polymer materials with fiber reinforcements across aerospace, automotive, and energy sectors is the primary driver propelling market growth. High-performance composites, characterized by their exceptional strength-to-weight ratio and chemical resistance, are transforming industries reliant on materials that deliver superior performance in challenging environments.

The aerospace sector remains a key contributor to market growth, where composites are increasingly utilized in commercial aircraft manufacturing. For instance, Boeing's 787 Dreamliner, which incorporates over 50% high-performance composites, exemplifies their widespread adoption. Furthermore, the growing emphasis on renewable energy sources is driving demand for these composites in wind turbine production, while applications in pressure vessels and alternative fuel vehicles are also gaining traction.

Despite their high production cost and labor-intensive manufacturing requirements, efforts to make high-performance composites more accessible to mass-market applications continue. Industry participants, alongside government initiatives, are heavily investing in cost-cutting measures to enhance affordability and scalability.

The market's adoption extends beyond niche applications like premium automobiles

and military aircraft to everyday innovations, including alternative energy systems and construction materials. The development of cost-effective manufacturing processes and robust R&D initiatives are expected to unlock significant opportunities for growth.

Major market players included in this report are:

Arkema SA

Albany International Corporation

BASF SE

Teijin Ltd.

Owens Corning Corporation

Hexcel Corporation

Solvay S.A.

TPI Composites, Inc.

Koninklijke Ten Cate BV

SLG Group – The Carbon Company

Toray Industries Inc.

The detailed segments and sub-segment of the market are explained below:

By Resin Type:

High Performance Thermoplastic Composites

Polyether Ether Ketone

Polyphenylene Sulfide

High Performance Thermoset Composites

Polyester

Epoxy

Phenolics

Cyanate Esters

By Fiber Type:

Carbon Fiber Composites

Aramid Fiber Composites

S-Glass Composites

Others

By Application:

Automotive

Defense & Aerospace

Construction

Medical

Others

By Region:

North America

U.S.

Canada

Mexico

Europe

UK

Germany

France

Italy

Spain

Asia Pacific

China

India

Japan

South Korea

Australia

Latin America

Brazil

Argentina

Middle East & Africa

Saudi Arabia

UAE

South Africa

Years considered for the study are as follows:

Historical year – 2022

Base year – 2023

Forecast period – 2024 to 2032

Key Takeaways:

Market Estimates & Forecast for 10 years from 2022 to 2032.

Annualized revenues and regional-level analysis for each market segment.

Detailed analysis of geographical landscapes with country-level analysis of major regions.

Competitive landscape with information on major players in the market.

Analysis of key business strategies and recommendations on future market approach.

Analysis of competitive structure in the market.

Demand-side and supply-side analysis of the market.

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