

# **Epoxy Composite Resin Market Assessment, By Fiber Type [Synthetic and Organic], By Application [Automobiles Components, Adhesives & Sealants, Marine Systems, Turbine Blades, and Others], By End-use Industry [Automotive, Aerospace, Marine, Renewable Energy, Building & Construction, Electrical & Electronics, Sports, and Others], By Region, Opportunities, and Forecast, 2016-2030F**

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## **Abstracts**

Epoxy Composite Resin Market size was valued at USD 8.6 billion in 2022, which is expected to grow to USD 13.9 billion in 2030 with a CAGR of 6.2% during the forecast period between 2023 and 2030. The increasing production activities related to automotive vehicles at the global level and the rising demand for superior bonding materials in the aerospace industry are the prominent aspects driving the epoxy composite resin market.

The increasing investment in developing new automotive facilities, rising demand for electric vehicles, and others are accelerating the automotive industry's growth at the global level. In addition, the rising demand for larger floor areas for commercial buildings, rising infrastructure development projects, and others are key trends boosting the growth of building & construction activities in various regions, including Asia-Pacific, North America, and others. Therefore, the increasing production activities for automotive vehicles and the rising building & construction activities are fuelling the demand for epoxy composite resin to ensure superior resistance against wear and corrosion, higher flame-retardant properties, and efficient curing agent properties which, in turn, is driving the market growth.

## The Recent Product Innovations for the Epoxy Composite Resins

The leading industry players offering epoxy composite resin, a type of reactive prepolymer, are investing in new product innovations to increase the upgraded product offering in the global market. Thus, the revenue share of the companies dealing in epoxy composite resin is rising as the adoption of new products acting as curing agents increases in a diverse range of end-use industries, benefiting market growth.

For instance, in August 2022, Hexion Inc., a leading chemical manufacturer in the United States, introduced a new range of epoxy resin for application in SMC manufacturing of automotive composites. Thus, the recent product innovations related to epoxy composite resins equipped with updated features are driving market growth at the global level.

## The Rising Automotive Production Activities

Using epoxy composite resin in automotive acts as a curing agent to minimize the weight of the finished automotive part. The advantages of reducing the weight of automobiles include minimum fuel consumption and operating costs, thereby leading to fewer emissions. The growth of the automotive industry is attributed to factors such as government subsidies for electric vehicles, increasing developments in autonomous vehicles, and others.

For instance, according to the recent statistics published by the European Automobile Manufacturers Association (ACEA), in 2021, global automotive production was 80.8 million units. In 2022, it was 85.4 million units, an increase of 5.7%. Hence, the increase in the production of automotive vehicles at the global level is boosting the demand for epoxy composite resins to ensure the lightweight structure of automobiles, which, in turn, is favouring market growth.

## The Booming Aerospace Industry is Supplementing Market Growth

The epoxy composite resin is a curing agent to sustain an aircraft's strength and durability, ensuring the airliners transport more passengers and cargo at reduced fuel costs. The development of new compact aircraft, new technological innovations in the aerospace industry, and others are boosting the growth of the aerospace industry.

For instance, in 2020, the delivery of newly built aircraft by Boeing was 154 units; in

2021, it was 169 units, an increase of 9.7%. Therefore, the booming aerospace industry is fostering the demand for epoxy composite resin to ensure superior structural strength and flame-retardant properties, which, in turn, is propelling the market growth.

### Development of New Wind Energy Projects

The epoxy composite resin is a type of reactive prepolymer, ideal for wind energy to secure the larger blade's size, efficient curing agent, lighter, superior flame-retardant, and others. Thus, the wind energy blades displace significant air, making wind energy highly cost-effective. The prime variables, including increasing renewable energy targets and other trends, are boosting the development of new wind energy projects.

For instance, in August 2022, Iberdrola commenced the development of the 1,400 MW East Anglia Three offshore wind farm in the United Kingdom. The project will provide electricity to 1.3 million houses in the United Kingdom in 2026. As a result, the development of new wind energy projects in various countries, including the United Kingdom, India, and others, is fostering the demand for epoxy composite resins to ensure the cost-effectiveness of wind turbine blades, which, in turn, is increasing the market growth.

### Impact of COVID-19

The stringent COVID-19 protocols in 2020 significantly impacted the production of aircraft, vehicles, and others. For instance, according to the Organisation Internationale des Constructeurs d'Automobiles (OICA), in 2019, the global automotive production was 92,120,732 units, and in 2020, it was 77,650,152 units, a decline of 15.7%. Thus, the halt of automotive output led to a decline in the market's revenue growth in 2020.

However, the economic stimulus packages significantly enhanced the epoxy composite resin market growth by 2020. Likewise, in the coming years, it is anticipated the impact of the COVID-19 pandemic will be eradicated, which will boost the epoxy composite resin industry's outlook during the projected forecast period.

### Impact of Russia-Ukraine War

The Russia-Ukraine war posed a bottleneck in the supply of raw materials, higher energy prices, and others. As a result, the manufacturing activities of industrial products in Russia, Ukraine, and several European countries were halted in the first half of 2022. Thus, the demand for epoxy composite resin declined in the first half of 2022 in Russia,

Ukraine, Poland, and others.

For instance, in February 2022, Isuzu halted automotive production in Russia. Thus, the halt in industrial manufacturing activities due to Russia's invasion of Ukraine created a roadblock for epoxy composite resin in the first half of 2022.

### Key Players Landscape and Outlook

The prominent epoxy composite resin market players include Toray Industries, Inc., Huntsman International LLC., Copps Industries, and Hexcel Corporation. These are equipped with state-of-the-art manufacturing facilities to ensure bulk product requirements as per the end-use industries' demand. The major players in the manufacturing of epoxy composite resin are investing in strategies such as new product innovation, acquisitions, and others to increase their market share in the epoxy composite resin industry.

For instance, in February 2022, Westlake Chemical Corporation, a global manufacturer of materials, acquired the epoxy business unit of Hexion Inc., a United States-based manufacturer of epoxy composite resin for USD 1.2 billion. The primary aim of acquiring Hexion Inc. was to increase the revenue growth of Westlake Chemical Corporation in the global epoxy composite resin market.

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