

# **FRP Vessels Market by Fiber Type (Glass, Carbon), Resin Type (Polyester, Epoxy, Others), Application (Automotive & Transportation, Water and Wastewater, Chemical, Industrial, Oil & Gas), and Region - Global Forecast to 2027**

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## **Abstracts**

The global FRP vessels market size is projected to grow from USD 3.9 Billion in 2022 to USD 5.7 Billion by 2027, at a CAGR of 8.0%. The increasing demand for FRP vessels in water & wastewater treatment and chemical industries is one of the most significant factors projected to drive the growth of the FRP vessels market.

“Greater tax incentives for CNG vehicles and infrastructure to boost the market growth.”

Tax incentives for CNG vehicles have been increased or extended in various regions, including Asia Pacific, Europe, and North America, in a bid to reduce CO2 emissions. In May 2019, the government of the US state of Oklahoma revised and approved its legislation concerning tax credits as they apply to compressed natural gas (CNG) vehicles and their refueling. The legislation was extended from January 1, 2020, to December 31, 2027. This will ensure that Oklahoma consistently leads the country in supporting natural gas for vehicles as the best fuel option. In turn, this will generate demand for FRP vessels.

In December 2019, the Ministry of Petroleum and Natural Gas in India cut GST on CNG vehicles to 5% from the current 28%, which indirectly helped the government to drive the popularity of gas vehicles. This has resulted in the increasing demand for FRP vessels.

“development of low-weight FRP vessels for hydrogen-powered cars to create opportunities for FRP vessels market.”

Hydrogen-powered cars have electric motors that drive the wheels, like in an electric car. However, while electrical power is stored in a conventional battery in an electric car, in a hydrogen car, the electricity is stored in the form of hydrogen and converted into electricity in a device known as a fuel cell. Currently, the cost of storage tanks for such cars is very high, thus limiting their use. A 5-kg storage tank for a car costs around USD 4,000-4,500, which is a huge price addition to the total cost of the car. Research is underway to develop Class 4-cylinder tanks made from lightweight carbon fiber. The top manufacturers of hydrogen storage FRP tanks for cars are Luxfer Group (UK), Worthington Industries, Inc. (US), Quantum Fuel System LLC (US), Ullit SA (France), and Agility Fuel Systems (US).

“Well established infrastructure for electric cars to be a major challenge for FRP vessels market.”

Hydrogen-powered cars are popular in countries such as South Korea and Japan, where the respective governments have offered subsidies for these vehicles and also provided finance to build the necessary infrastructure. In the US, the state of California offers incentives for the use of fuel cell-powered vehicles. Although hydrogen-powered cars may be a sustainable technology in the modern world, experts believe hydrogen needs to be developed from a natural gas source, which results in the use of fossil fuels. Electric cars rely on battery power and hence are greener than hydrogen-powered cars. However, efforts are being made to use hydrogen produced from renewable sources. Hydrogen-powered cars are three times less energy efficient, have less volumetric efficiency, and have higher weight as compared to electric cars. The necessary infrastructure for refueling the tanks is inadequate, which restrains the growth of the FRP vessels market. Industry experts believe that if hydrogen technology does not become more refined during the forecast period, electric cars will take precedence. Companies in the fuel cell car market, such as Toyota, Hyundai, and Honda, are already planning to develop electric vehicles in addition to hydrogen-powered vehicles in case the latter technology gets phased out.

“Asia Pacific to be the dominating region in FRP vessels market in terms of both value and volume.”

Asia Pacific is the fastest-growing FRP vessels market due to the rising demand for corrosion-resistant and lightweight tanks from the chemical, water & wastewater, and

transportation industries in the region. The presence of emerging economies, such as China and India, makes the region the most promising market for FRP tanks. An increase in the demand for FRP tanks from the water & wastewater and oil & gas industries in Saudi Arabia and the UAE is expected to drive the market in the Middle East region during the forecast period.

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 Executives- 30%

By Region- Europe- 50%, Asia Pacific (APAC) - 20%, North America- 15%, Middle East & Africa (MEA)-10%, Latin America-5%,

The report provides a comprehensive analysis of company profiles:

Hexagon Composites ASA (Norway), Luxfer Group (England), Worthington Industries, Inc. (US), Everest Kanto Cylinders Ltd. (India), Quantum Fuel Systems LLC. (US), Faber Industrie SpA (Italy), Avanco Group (Germany), Shawcor Ltd (US), NOV Inc. (US), and Lianyungang Zhongfu Lianzhong Composites Group Co. Ltd. (China).

## Research Coverage

This report covers the global FRP vessels market and forecasts the market size until 2027. It includes the following market segmentation – by fiber type (Glass fiber, Carbon fiber, and Others)), by Resin type (Polyester, Epoxy, and Others), by Application (Water & Wastewater, Chemical, Automotive & Transportation, Oil & Gas Industrial, and Others), and Region (North America, Europe, Asia Pacific, Middle East & Africa, South America). Porter's Five Forces Analysis, along with the drivers, restraints, opportunities, and challenges, have been discussed in the report. It also provides company profiles and competitive strategies adopted by the major players in the global FRP vessels market.

Key benefits of buying the report:

The report is expected to help market leaders/new entrants in this market in the following ways:

1. This report segments the global FRP vessels market comprehensively. It provides the closest approximations of the revenues for the overall market and the sub-segments across different verticals and regions.
2. The report helps stakeholders understand the pulse of the FRP vessels market and provides them with information on key market drivers, restraints, challenges, and opportunities.
3. This report will help stakeholders to understand competitors better and gain more insights to better their position in their businesses. The competitive landscape section includes the competitor ecosystem, new product development, agreement, contract, expansion, and acquisition.

Reasons to buy the report:

The report will help leaders/new entrants in this market by providing them with the closest approximations of the revenues for the overall FRP vessels 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.

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\*Details on Business Overview, Products Offered, Recent Developments, MnM View, Right to win, Strategic choices made, Weaknesses and competitive threats might not be captured in case of unlisted companies.

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