

Europe Pressure Vessel Composite Materials Market Forecast to 2028 – COVID-19 Impact and Regional Analysis – by Material (Resin, Fiber, and Others) and End User (CNG Vehicles, Hydrogen Vehicle, Gas Transport, and Others)

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Abstracts

The Europe pressure vessel composite materials market is expected to grow from US\$ 304.96 million in 2022 to US\$ 913.68 million by 2028; it is estimated to grow at a CAGR of 20.1% from 2022 to 2028.

Expanding Demand for Epoxy Resins

Pressure vessel composite materials represent one of the fastest-growing markets for epoxy resin in the composites industry. The factors such as its mechanical and adhesive properties, and water resistance play a major role. Hydrogen fuel-based vehicles currently generate negligible demand for pressure vessels and hence, the epoxy resin. Nevertheless, it is plausible that there would be a healthy production of hydrogen fuel-based vehicles in the upcoming years as more than ten automakers have already released FCV demonstrators and test fleets. Type IV tank is most likely to witness high growth over the upcoming years, and so is the demand for the epoxy resins in this vessel type. Type IV tank incorporates a more significant amount of carbon epoxy composites, and it offers maximum weight saving compared to other pressure vessel types. There is increasing penetration of type IV tanks particularly in mass transit medium & heavy-duty commercial vehicles and buses. For medium and heavy-duty commercial vehicles, higher fuel density and lower mass of these vessels permit more excellent range and fuel efficiency, increase the operational interval between refueling stops, and reduce maintenance cost. Moreover, rising demand for epoxy resins are further anticipated to boost the growth of the Europe pressure vessel composite



materials market over the forecast period .

Market Overview

Europe's pressure vessel composite market comprises Germany, France, Italy, the UK, Russia, and the Rest of Europe. Europe has a well-established industrial sector. Germany, Italy, and France account for a significant proportion of the industry in the European region. The use of pressure vessels in industrial uses such as hydraulic reservoirs, distillation towers, and the containment of liquefied gases favors the market demand for pressure vessel composite materials in the region. The rapidly growing economies of the countries are also aiding the industry growth, which further propels the pressure vessel composite materials market growth. Stringent energy efficiency regulations and emission standards across the European Union drive the pressure vessel composite materials market.

Europe Pressure Vessel Composite Materials Market Revenue and Forecast to 2028 (US\$ Million)

Europe Pressure Vessel Composite Materials Market Segmentation

The Europe pressure vessel composite materials market is segmented based on material, end user, and country. Based on material, the Europe pressure vessel composite materials market is segmented into resin, fiber, and others. The thermoset cylinders segment held the largest market share in 2022.

Based on end user, the Europe pressure vessel composite materials market is segmented into CNG vehicles, hydrogen vehicle, gas transport, and others. The CNG vehicles segment held the largest market share in 2022.

Based on country, the Europe pressure vessel composite materials market is segmented into Germany, Italy, the UK, France, Russia, and the Rest of Europe. Germany dominated the market share in 2022.

3M Co; BASF SE; Huntsman Corporation; Kolon Industries Inc.; Mitsubishi Chemical Holdings Corp; Solvay SA; Zoltek Corp; Hexion Inc.; and Olin Corp are the leading companies operating in the Europe pressure vessel composite materials market.



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