

# Rail Composites Market by Fiber Type (Glass Fiber, Carbon Fiber), Resin Type (Polyester, Phenolic, Epoxy, Vinyl Ester), Manufacturing Process (Lay-up, Injection Molding, Compression Molding, RTM), Application, & Region - Global Forecast to 2028

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## Abstracts

The rail composites market is projected to grow from USD 1.7 billion in 2023 to USD 2.4 billion by 2028, at a CAGR of 7.2% during the forecast period. Almost all composites used in the rail industry are manufactured using thermosetting resin due to their high resistance to high temperature. Phenolic resin obtained by the reaction of phenols and aldehydes. Phenolic resins have good fire, smoke, and toxic (FST) resistant properties; hence, used widely in the rail applications. Phenolic resin is used in the manufacturing of ceilings, floors, bulkheads, and stairs among other applications.

“Filament winding manufacturing process is expected to register highest CAGR in rail composites market during forecasted period.”

Filament winding is an automated open molding process in which a rotating mandrel is used as a mold to produce an inner surface and a laminate surface on the outside of the product. This process offers high fiber loading and produces high strength-to-weight ratio laminates. It is a quick and economical method for manufacturing rail composites. This process is automated and used to make engineered structures. It produces hollow or circular components.

“In terms of value, interior components application accounted for the largest share of the overall rail composites market.”

Composites get widely used in manufacturing ducts, seats, panels, and many other

interior and exterior components in the rail industry. Headrest back panels, seats, luggage bins can be produced from glass fiber composites. Composite modules, such as trays, grab handles, and seat holders can be manufactured from natural fiber composites, which can give them an aesthetic look and feel, apart from being low cost. Cooling fan blades, such as ventilator fan blades, cooling fan with butt blades, cooling ventilators with bar blades can be manufactured with composites.

“During the forecast period, the rail composites market in Europe region is projected to register second-highest CAGR.”

Europe is projected to be the second-fastest-growing region the rail composites market during forecasted years. Most of the European government owned rail companies provides high-speed rail (HSR) service. In many European countries inter-country HSR network is operational. The EU commission is planning to allocate some part of community funds for the development of HSR within the trans-Europe network. This expansion plan of HSR network is estimated to increasing the demand for composites in rail applications.

This study has been validated through primary interviews with industry experts globally. These primary sources have been divided into the following three categories:

By Company Type- Tier 1- 40%, Tier 2- 33%, and Tier 3- 27%

By Designation- C Level- 50%, Director Level- 30%, and Others- 20%

By Region- North America- 15%, Europe- 50%, Asia Pacific (APAC) - 20%,  
RoW-15

The report provides a comprehensive analysis of company profiles:

Prominent companies include Gurit Holdings AG (Switzerland), Hexcel Corporation (US), 3A Composites (Switzerland), Toray Industries, Inc. (Japan), Solvay (Belgium), Teijin Limited (Japan), Premier Composite Technologies (UAE), Dartford Composites Ltd. (UK), Exel Composites (Finland), Avient Corporation (US), Kinenco Limited (India), BASF SE (Germany), AVIC Cabin Systems (UK), BFG International (Bahrain), and Reliance Industries Ltd. (India).

## Research Coverage

*Rail Composites Market by Fiber Type (Glass Fiber, Carbon Fiber), Resin Type (Polyester, Phenolic, Epoxy, Viny...*

This research report categorizes the rail composites Market by Fiber Type (Carbon Fiber, Glass Fiber, and Others), Resin Type (Polyester, Phenolic, Epoxy, Vinyl Ester, and Others), Manufacturing Process (Lay-up, Filament Winding, Injection Molding, Pultrusion, RTM, Compression Molding, And Others), Application (Exterior Components, Interior Components, and Others), and Region (North America, Europe, Asia Pacific, and Rest of the World). The scope of the report includes detailed information about the major factors influencing the growth of the rail composites market, such as drivers, restraints, challenges, and opportunities. A thorough examination of the key industry players has been conducted in order to provide insights into their business overview, solutions, and services, key strategies, contracts, partnerships, and agreements. New product and service launches, mergers and acquisitions, and recent developments in the rail composites market are all covered. This report includes a competitive analysis of upcoming startups in the rail composites market ecosystem.

Reasons to buy this report:

The report will help the market leaders/new entrants in this market with information on the closest approximations of the revenue numbers for the overall rail composites market and the subsegments. This report will help stakeholders understand the competitive landscape and gain more insights to position their businesses better and plan suitable go-to-market strategies. The report also helps stakeholders understand the pulse of the market and provides them with information on key market drivers, restraints, challenges, and opportunities.

The report provides insights on the following pointers:

Analysis of key drivers (Increasing demand for high-speed rails, aesthetic properties and safety), restraints (High processing cost, concerns about recyclability), opportunities (Increasing demand from emerging countries, high adoption in rail ties, sleeper and composite bridges), and challenges (Development of low-cost manufacturing technologies) influencing the growth of the rail composites market

Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product & service launches in the rail composites market

Market Development: Comprehensive information about lucrative markets – the

report analyses the rail composites market across varied regions.

**Market Diversification:** Exhaustive information about new products & services, untapped geographies, recent developments, and investments in the rail composites market

**Competitive Assessment:** In-depth assessment of market shares, growth strategies and service offerings of leading players like Gurit Holdings AG (Switzerland), Hexcel Corporation (US), 3A Composites (Switzerland), Toray Industries, Inc. (Japan), Solvay (Belgium), Teijin Limited (Japan), Premier Composite Technologies (UAE), Dartford Composites Ltd. (UK), Exel Composites (Finland), Avient Corporation (US), Kineco Limited (India), BASF SE (Germany), AVIC Cabin Systems (UK), BFG International (Bahrain), and Reliance Industries Ltd. (India). among others in the rail composites market.

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## About

The report “Rail Composites Market by Fiber type, Applications, by resin type and by geography - Trend and Forecast to 2020” defines and segments the global rail composite market with an analysis and forecast of its global volume and value.

The Asia-Pacific and European region were the world’s largest market for rail composite in 2014. China is the key consumer of rail composite in Asia-Pacific. Growth of high speed train in china and South Korea is one of the biggest driver for this market in Asia pacific region. China’s rollout of its high-speed rail network started in 2007. By now, it rolled out many high-speed rail lines. Various product launches, partnerships, agreements, and expansions have in turn made the regions a potential growth market for rail composite.

Glass fiber composite is the biggest rail composite material driven by its high demand for various rail applications. Interior components are the growing application of rail composite and are projected to grow at a healthy rate in projected period.

Toray Industries (Japan), Cytec Industries Inc. (U.S.), Royal TenCate nv (Netherlands), Gurit Holding AG (Switzerland), Hexel Corporation (U.S.), and Teijin Limited (Japan) are some of the major supplier of rail composites material. Company profiling and competitive strategies adopted by top rail composite components manufacturers such as AIM ALTITUDE (U.K.), Dartford Composites Ltd. (U.K.), and Exports Limited (India), Premier Composite Technologies (Dubai), FDC Composites Inc. (Canada), TPI Composites Inc. (U.S.), etc. are also covered in the report.

The rail composites market is projected to witness growth at an estimated CAGR of 8.5% from 2015 to reach \$1 billion by 2020.

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