

# Global Engineered Polymers in Electric Vehicles Market Size Study, by Type of Engineered Polymer (Thermoplastics, Thermosets, Elastomers), by Application (Connectors, Insulators, Enclosures, Cables) and Regional Forecasts 2022-2032

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## Abstracts

The Global Engineered Polymers in Electric Vehicles Market is valued at approximately USD xxx billion in 2023 and is anticipated to grow with a promising compound annual growth rate of xxx% during the forecast period 2024-2032. As the global automotive industry pivots aggressively toward electrification, engineered polymers have emerged as strategic enablers of this transformation. These advanced materials—renowned for their lightweight nature, high heat resistance, and exceptional mechanical integrity—are being increasingly adopted in electric vehicles (EVs) to enhance performance, efficiency, and safety. From precision-molded connectors to robust insulators and protective enclosures, engineered polymers are helping manufacturers solve critical challenges posed by high-voltage electric powertrains and next-generation battery systems.

The surge in demand for electric vehicles, driven by environmental regulations, consumer awareness, and government incentives, has directly amplified the need for polymer-based solutions that can replace traditional metal components without compromising structural integrity. As OEMs race to extend EV range and reduce battery weight, the use of thermoplastics and elastomers in EV architecture has skyrocketed. Polymers not only help cut vehicle mass but also offer design flexibility, vibration dampening, and excellent thermal stability—features essential for managing complex wiring harnesses, insulation layers, and high-current electronic control units. Despite this momentum, market players are challenged by regulatory compliance hurdles and recycling complexities associated with certain polymer categories.

Innovations in polymer chemistry and compounding technologies have ushered in a new era of materials tailored specifically for EV environments. Companies are engineering polymers with flame retardant properties, low dielectric constants, and enhanced electromagnetic shielding capabilities to meet the demands of high-voltage applications. Meanwhile, partnerships between chemical giants and automakers are fueling the development of polymers that can operate efficiently under extreme thermal, chemical, and mechanical stress. These collaborations are also catalyzing the shift toward sustainable, bio-based polymer solutions, aligning the EV ecosystem with global carbon neutrality goals and circular economy principles.

Regionally, North America holds a strong foothold in the engineered polymers in EV market, supported by rapid electric mobility adoption and a robust R&D infrastructure. Europe closely follows, bolstered by aggressive decarbonization mandates, high-performance automotive manufacturing hubs, and advancements in polymer processing technologies. However, Asia Pacific is poised to witness the most accelerated growth through 2032, fueled by the electric vehicle boom in China, South Korea, and India. These countries are not only key production centers but also house massive domestic EV markets, creating a thriving demand for lightweight polymer solutions. Latin America and the Middle East & Africa are steadily catching up, driven by regulatory support and growing consumer interest in sustainable transportation.

Major market player included in this report are:

BASF SE

DuPont de Nemours, Inc.

SABIC

Solvay S.A.

Dow Inc.

Lanxess AG

Covestro AG

LyondellBasell Industries N.V.

Evonik Industries AG

Celanese Corporation

Arkema S.A.

Huntsman Corporation

Borealis AG

Mitsubishi Chemical Holdings Corporation

Asahi Kasei Corporation

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

By Type of Engineered Polymer:

Thermoplastics

Thermosets

Elastomers

By Application:

Connectors

Insulators

Enclosures

Cables

By Region:

## North America

U.S.

Canada

## Europe

UK

Germany

France

Spain

Italy

Rest of Europe

## Asia Pacific

China

India

Japan

Australia

South Korea

Rest of Asia Pacific

## Latin America

Brazil

Mexico

Middle East & Africa

Saudi Arabia

South Africa

Rest of Middle East & 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 landscape 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 of the market.

Demand side and supply side analysis of the market.

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