

# **Automotive Shielding Market Forecasts to 2032 – Global Analysis By Shielding Type (EMI Shielding and Heat Shielding), Material (Metals, Polymers, Composites and Graphene-Based Materials), Vehicle Type, Application and By Geography**

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## **Abstracts**

According to Statistics MRC, the Global Automotive Shielding Market is accounted for \$6.8 billion in 2025 and is expected to reach \$11.2 billion by 2032 growing at a CAGR of 7.4% during the forecast period. Automotive shielding refers to the protective methods and materials used in cars to block or reduce electromagnetic interference (EMI) and heat generated by electronic parts. It guarantees the optimal operation of delicate automotive electronics, augments safety, and elevates overall performance. Typical applications of shielding include engine control units, infotainment systems, and electrical harnesses. Materials such as metal sheets, conductive plastics, and special coatings are used to prevent signal problems and overheating in components.

According to the International Energy Agency (IEA), a reputed source for energy data and analysis, electric car sales reached nearly 14 million in 2023, marking a 35% increase compared to 2022.

Market Dynamics:

Driver:

Growth in autonomous and connected vehicles

The swift progression and incorporation of autonomous and connected vehicle technologies serve as major accelerators for the automotive shielding market. As cars

are progressively outfitted with advanced sensors, radar, cameras, and communication modules, the likelihood of electromagnetic interference (EMI) markedly increases. Automotive shielding solutions are vital for ensuring the dependable functionality of these crucial components, preserving safety and continuous connectivity. The rise of electric vehicles and advanced driver assistance systems (ADAS) increases the demand for effective shielding, driving market expansion as automakers emphasize strong electrical protection.

Restraint:

High cost of advanced shielding materials

Contemporary automobiles require lightweight, resilient, and high-performance shielding systems, frequently employing superior metals or composite materials. These innovative materials, although effective, are significantly more costly than traditional options, hence elevating the overall production expenses for automakers. The incorporation of these materials necessitates specific production procedures, hence increasing costs. Consequently, price-sensitive markets and manufacturers may be reluctant to embrace advanced shielding technologies, thus constraining further market adoption.

Opportunity:

Integration with 5g and V2X technologies

As automobiles become increasingly interconnected, the quantity and intricacy of electronic communications both within and external to the vehicle escalate dramatically. Efficient shielding is essential to avert signal interference, guaranteeing uninterrupted data transfer for functionalities such as real-time navigation, safety notifications, and autonomous driving. Furthermore, the deployment of 5G networks and the proliferation of V2X applications will stimulate the need for advanced shielding solutions capable of accommodating higher frequencies and increased data throughput, hence creating new opportunities for market growth.

Threat:

Complexity in designing shielded systems

As vehicles integrate additional electronic components and networking features,

achieving comprehensive EMI protection without sacrificing performance or adding unnecessary weight becomes progressively more difficult. Additionally, combining shielding technologies with new vehicle designs while meeting strict regulations requires a lot of engineering skill. This complexity may result in extended development cycles, increased costs, and even delays in product introductions, thereby hindering market growth.

#### Covid-19 Impact:

The Covid-19 outbreak profoundly impacted the automotive shielding market by inducing extensive manufacturing facility closures, supply chain disruptions, and a marked decrease in vehicle sales. Lockdowns and border closures resulted in shortages of critical components and postponed manufacturing timelines, while economic uncertainty caused consumers to prioritize needed expenditures over car acquisitions. As a result, automakers diminished production and investments in innovative technologies, including automobile shielding solutions. Despite ongoing recovery, the pandemic's effects have engendered enduring issues in supply chain resilience and market demand.

The passenger cars segment is expected to be the largest during the forecast period

The passenger cars segment is expected to account for the largest market share during the forecast period. This preeminence is ascribed to the increasing production and sales of passenger automobiles, particularly in emerging markets characterized by rising disposable incomes and urbanization. Additionally, the increasing use of advanced electronic parts, like entertainment systems, Advanced Driver Assistance Systems (ADAS), and networking solutions, makes it more important to protect against electromagnetic interference (EMI) and heat effects. Moreover, rigorous regulatory standards for safety and pollution in passenger vehicles propel the use of high-performance shielding solutions, solidifying this segment's dominant position.

The electromagnetic interference (EMI) shielding segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the electromagnetic interference (EMI) shielding segment is predicted to witness the highest growth rate. The increase in electronic components in automobiles, such as sensors, communication modules, and power electronics, has rendered EMI shielding essential for ensuring system reliability and safety. Furthermore, the swift proliferation of electric and hybrid vehicles, which are especially susceptible to

electromagnetic interference, intensifies the requirement for sophisticated EMI shielding solutions. The ongoing advancement of automotive electronics and the necessity for regulatory adherence are significant drivers of this sector's substantial expansion.

Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market share. This leadership is propelled by the region's designation as a global automotive manufacturing center, with nations such as China, Japan, and India in the forefront of vehicle production and sales. Swift urbanization, increasing consumer affluence, and robust demand for both traditional and electric vehicles drive market growth. Furthermore, rigorous pollution and safety laws in major markets promote the implementation of advanced shielding technologies, reinforcing Asia Pacific's preeminent status.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR. The region's vigorous expansion is bolstered by the swift uptake of electric vehicles, governmental efforts advocating for greener transportation, and substantial investments in automotive innovation. The growing integration of connected and autonomous car technology necessitates advanced shielding solutions, propelling swift market growth. The existence of prominent automakers and a dynamic supply chain ecosystem further amplifies the Asia Pacific's potential for sustained, rapid growth in this sector.

Key players in the market

Some of the key players in Automotive Shielding Market include Tenneco Inc., Laird PLC, Henkel AG & Co. KGaA, Dana Incorporated, Morgan Advanced Materials plc, 3M Company, Parker Hannifin Corporation, KGS KITAGAWA INDUSTRIES CO, ElringKlinger AG, Autoneum Holding AG, Tech-Etch, Inc., Marian, Inc., RTP Company, Schaffner Holding AG, Federal-Mogul Corporation, PPG Industries, Inc. and TE Connectivity Ltd.

Key Developments:

In May 2024, Henkel introduced three new potting adhesives—Loctite SI 5035, Loctite AA 5832, and Loctite PE 8086 AB. These products are designed to protect electronic

components like ECU connectors and e-motors from water, temperature fluctuations, and automotive fluids, enhancing the durability and performance of automotive electronics.

In July 2023, ElringKlinger secured a five-year series production contract from a global Tier 1 supplier to provide metal battery housings for commercial vehicles and city buses in the U.S. market. The contract, valued in the low triple-digit million-euro range, includes investment in new production facilities in Buford, Georgia, with production scheduled to begin in 2024.

#### Shielding Types Covered:

Electromagnetic Interference (EMI) Shielding

Heat Shielding

#### Materials Covered:

Metals

Polymers

Composites

Graphene-Based Materials

#### Vehicle Types Covered:

Passenger Cars

Light Commercial Vehicles (LCV)

Heavy Commercial Vehicles (HCV)

#### Applications Covered:

Heat Shielding Applications

EMI Shielding Applications

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2024, 2025, 2026, 2028, and 2032
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments

- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

#### Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

#### Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

#### Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

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