

# Global Conductive & EMI Shielding Plastics For 5G & IoT Market Size Study & Forecast, by Product, Application, and Regional Forecasts 2025-2035

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## Abstracts

The Global Conductive & EMI Shielding Plastics For 5G & IoT Market is valued at approximately USD 1.35 billion in 2024 and is anticipated to grow with a remarkable CAGR of 10.97% over the forecast period 2025–2035. As the proliferation of connected devices continues to accelerate in an increasingly digital-first world, the demand for electromagnetic interference (EMI) shielding solutions has surged in tandem. In this dynamic landscape, conductive plastics and engineered polymer composites have emerged as game-changers, offering a blend of lightweight design, electrical conductivity, and cost-efficiency. These materials are revolutionizing the architecture of antennas, sensors, base stations, and other communication modules pivotal to 5G and Internet of Things (IoT) infrastructure.

Unlike traditional metallic shielding components, which often pose weight and corrosion issues, conductive polymers and metal-filled or carbon-based plastic matrices have paved a new path for electronics manufacturers. Their ability to combine structural integrity with superior EMI attenuation makes them highly suitable for high-frequency signal transmission environments. This market is propelled by the ongoing rollout of 5G networks worldwide, increasing deployment of smart city solutions, and rising integration of IoT-enabled devices across industries such as automotive, healthcare, industrial automation, and consumer electronics. Additionally, their compatibility with injection molding and 3D printing technologies is significantly streamlining the mass production of complex geometries, further enhancing product design flexibility and cost control.

Regionally, North America held the lion's share of the market in 2025, driven by extensive investment in 5G base station deployment, advanced electronics

manufacturing, and robust presence of R&D facilities. The U.S., in particular, is fostering demand through rapid adoption of IoT in sectors like defense, smart home systems, and autonomous vehicles. Europe trails closely, fueled by strong regulations around electromagnetic compatibility (EMC) and growing adoption of green electronics solutions. Meanwhile, the Asia Pacific region is poised to exhibit the fastest growth through 2035, with nations like China, Japan, and South Korea aggressively pushing national 5G agendas. The region's booming consumer electronics sector and a fast-expanding 5G subscriber base are catalyzing massive investments into next-gen conductive material technologies.

Major market player included in this report are:

RTP Company

SABIC

LyondellBasell Industries

Ensinger GmbH

Celanese Corporation

PolyOne Corporation

Premix Group

Electriplast Corporation

Techmer PM

Ensinger Group

Covestro AG

Ensinger North America

Mitsubishi Chemical Advanced Materials

LEONI AG

Nanocyl SA

Global Conductive & EMI Shielding Plastics For 5G & IoT Market Report Scope:

Historical Data – 2023, 2024

Base Year for Estimation – 2024

Forecast period – 2025-2035

Report Coverage – Revenue forecast, Company Ranking, Competitive Landscape, Growth factors, and Trends

Regional Scope – North America; Europe; Asia Pacific; Latin America; Middle East & Africa

Customization Scope – Free report customization (equivalent up to 8 analysts' working hours) with purchase. Addition or alteration to country, regional & segment scope\*

The objective of the study is to define market sizes of different segments & countries in recent years and to forecast the values for the coming years. The report is designed to incorporate both qualitative and quantitative aspects of the industry within the countries involved in the study. The report also provides detailed information about crucial aspects, such as driving factors and challenges, which will define the future growth of the market. Additionally, it incorporates potential opportunities in micro-markets for stakeholders to invest, along with a detailed analysis of the competitive landscape and product offerings of key players. The detailed segments and sub-segments of the market are explained below:

By Product:

Conductive Polymers

Metal-Filled Plastics

## Carbon-Based Plastics

### By Application:

Antennas & Base Stations

### 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

UAE

Saudi Arabia

South Africa

Rest of Middle East & Africa

Key Takeaways:

Market Estimates & Forecast for 10 years from 2025 to 2035.

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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