

Electronic Materials Market Forecasts to 2032 – Global Analysis By Material Type (Semiconductors, Conductive Materials, Dielectric/Insulating Materials, Substrates and Process Chemicals & Specialty Materials), Technology, Application and By Geography

<https://marketpublishers.com/r/E530F13D8B03EN.html>

Date: December 2025

Pages: 200

Price: US\$ 4,150.00 (Single User License)

ID: E530F13D8B03EN

Abstracts

According to Statistics MRC, the Global Electronic Materials Market is accounted for \$67.82 billion in 2025 and is expected to reach \$108.91 billion by 2032 growing at a CAGR of 7.0% during the forecast period. Electronic materials are essential for manufacturing electronic components and devices, encompassing semiconductors, conductors, insulators, and dielectric materials. They form the backbone of modern electronics, supporting the functionality of transistors, integrated circuits, sensors, and storage devices. Silicon remains the leading semiconductor due to its electrical efficiency and availability, while alternatives like gallium arsenide, indium phosphide, and graphene are increasingly explored for high-speed and flexible uses. Conductive metals, such as copper and aluminum, are vital for electrical connections, and advanced dielectrics enhance device stability and efficiency. Continuous innovation in electronic materials propels progress in computing, telecommunications, and consumer electronics, driving technological evolution globally.

According to the Semiconductor Industry Association (SIA), data shows worldwide semiconductor sales reached 208.4 billion USD in Q3 2025, marking a 15.8% increase from Q2. Monthly sales in September 2025 alone were 69.5 billion USD, up 25.1% year-over-year.

Market Dynamics:

Driver:

Growing demand for consumer electronics

The rising adoption of consumer electronics such as smartphones, tablets, laptops, wearable devices, and smart home systems is a major driver of the electronic materials market. Demand for high-performance, compact, and energy-efficient components requires advanced semiconductors, conductive metals, and dielectrics. Consumer interest in innovative functionality, longer device lifespan, and superior reliability compels manufacturers to use advanced materials. Emerging technologies, including 5G networks, IoT devices, and smart appliances, further boost the need for specialized electronic materials. The emphasis on lightweight, robust, and high-speed components continues to stimulate market expansion, establishing the growth of consumer electronics as a central factor in advancing the electronic materials sector.

Restraint:

High cost of advanced electronic materials

The electronic materials market faces challenges due to the high prices of advanced substances such as gallium nitride, indium phosphide, and graphene. Production of these materials requires sophisticated processes, stringent purity standards, and heavy investment in research and development, resulting in elevated manufacturing costs. Smaller manufacturers may struggle to incorporate such materials, limiting their market reach. Furthermore, the increased cost of electronic components like semiconductors, sensors, and other devices can impact affordability for consumers. Price sensitivity in the electronics sector, coupled with fluctuations in raw material expenses, constrains the broad adoption of high-performance electronic materials, slowing market expansion and innovation.

Opportunity:

Expansion of 5G technology

The expansion of 5G networks worldwide provides lucrative opportunities for the electronic materials industry. High-speed, low-latency, and energy-efficient operations of 5G systems require advanced semiconductors, conductive metals, and dielectric materials. The demand for compact, fast, and reliable components is increasing with the

proliferation of 5G-enabled devices, such as smartphones, IoT gadgets, and network infrastructure. Electronic materials with enhanced electrical and thermal performance are critical to supporting these technologies. As telecom providers accelerate 5G deployments, suppliers of electronic materials have a chance to innovate, introduce cutting-edge solutions, and grow their global market share. The 5G rollout thus represents a substantial growth opportunity for the sector.

Threat:

Intense competition among manufacturers

The electronic materials industry is threatened by strong competition among existing and emerging manufacturers. Companies vying to provide advanced semiconductors, dielectrics, and conductive materials face pricing pressures and thinner profit margins. Continuous innovation is required to stand out, demanding significant investment in research and development. New entrants with cost-effective production capabilities can further disrupt established market dynamics. High competition may also prompt aggressive marketing, frequent product upgrades, and reduced product life cycles. As a result, manufacturers struggle to maintain market share, profitability, and technological edge. Intense industry rivalry, therefore, represents a substantial threat to the growth and stability of the electronic materials sector.

Covid-19 Impact:

The COVID-19 pandemic caused major disruptions in the electronic materials industry by affecting supply chains, halting manufacturing operations, and slowing industrial activities. Restrictions on movement and lockdowns hindered access to critical raw materials such as high-purity silicon, rare earth elements, and specialty alloys, leading to delays in production. Demand across sectors like consumer electronics, automotive, and telecommunications fluctuated, influencing material consumption patterns. Transportation challenges and rising logistics costs further strained manufacturers. On the other hand, the pandemic boosted digitalization, remote working, and demand for smart devices, creating new market opportunities. In summary, COVID-19 brought short-term challenges but also underscored the long-term growth prospects of the electronic materials market.

The semiconductors segment is expected to be the largest during the forecast period

The semiconductors segment is expected to account for the largest market share during

the forecast period due to their essential function in modern electronic devices. They are foundational for integrated circuits, microprocessors, transistors, and memory components, enabling fast processing and energy-efficient operation. The growing use of consumer electronics, automotive systems, telecommunications infrastructure, and industrial automation further fuels the demand for semiconductor materials. Cutting-edge technologies such as 5G, AI, and IoT increase reliance on high-performance semiconductors. Companies focus on developing advanced semiconductor materials to enhance miniaturization, efficiency, and device reliability. Consequently, semiconductors maintain the largest market share, highlighting their vital contribution to innovation and the continued growth of the electronic materials industry.

The thin-film deposition segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the thin-film deposition segment is predicted to witness the highest growth rate due to rising demand for compact, high-performance, and flexible electronic products. It plays a key role in manufacturing semiconductors, sensors, memory devices, and advanced displays by enabling precise material layering and excellent electrical performance. Growing applications in IoT devices, wearable electronics, flexible displays, and next-generation consumer electronics are accelerating the need for thin-film deposition materials. Advancements in deposition processes and material quality improve device efficiency, reliability, and production scalability. As a result, thin-film deposition is emerging as the segment with the highest growth rate, highlighting the market's focus on precision, innovation, and technologically advanced material applications.

Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market share, supported by a well-established manufacturing ecosystem, major semiconductor companies, and strong demand across consumer electronics, automotive, and industrial applications. Leading countries including China, Japan, South Korea, and Taiwan serve as primary centers for semiconductor fabrication, PCB production, and advanced electronic material manufacturing. Rapid adoption of technology, increasing use of smart devices, and expansion of industrial automation drive regional growth. Government initiatives promoting electronics production, coupled with research and development investments, further strengthen the market. As a result, Asia-Pacific remains the dominant region, acting as a key hub for innovation, manufacturing, and global consumption of electronic materials.

Region with highest CAGR:

Over the forecast period, the Middle East & Africa region is anticipated to exhibit the highest CAGR due to increasing industrialization, digitalization, and demand for consumer electronics. Expansion of smart infrastructure, telecommunications networks, and renewable energy projects drives the need for advanced semiconductors, conductive metals, and dielectric materials. Regional governments are encouraging local electronics manufacturing, research, and technology adoption, creating a favorable environment for material suppliers. Growth in sectors such as healthcare, automotive, and industrial automation further supports market expansion. With ongoing modernization and adoption of cutting-edge technologies, MEA is emerging as the fastest-growing region in the electronic materials market, offering substantial opportunities for manufacturers and investors alike.

Key players in the market

Some of the key players in Electronic Materials Market include Shin-Etsu Chemical Co., Ltd., Merck KGaA, Dow Inc., DuPont de Nemours, Inc., Sumitomo Chemical Co., Ltd., JSR Corporation, Entegris, Inc., LG Chem Ltd., BASF SE, Showa Denko Materials Co., Ltd., Tokyo Ohka Kogyo Co., Ltd., Henkel AG & Co. KGaA, SUMCO Corporation, KYOCERA Corporation and Cabot Microelectronics Corporation.

Key Developments:

In November 2025, Merck KGaA has signed a major collaboration agreement with Boston-based Valo Health, tapping into the biotech firm's AI-powered drug discovery platform to advance research in Parkinson's disease and related disorders. The deal could be worth more than \$3 billion to Valo.

In June 2025, Dow announced that it has signed a sale and purchase agreement to sell its 50% interest in DowAksa Advanced Composites Holdings BV (DowAksa) to Aksa Akrilik Kimya Sanayii A.?, a company of Akk?k Holding. Dow's decision to exit the joint venture, which was formed in 2012, is consistent with Dow's best-owner mindset strategy of focusing on its core, high-value downstream businesses.

In April 2024, Shin-Etsu Chemical agreed to acquire a dry adhesive technology that utilizes biomimicry developed by Setex Technologies, Inc. and develops a new market, with Shin-Etsu Chemical specializing in the corporate market while Setex focuses on

the consumer market. Setex is a startup that has developed a technology for providing materials with strong friction and adhesion by building a structure resembling a gecko's hand on their surfaces.

Material Types Covered:

Semiconductors

Conductive Materials

Dielectric/Insulating Materials

Substrates

Process Chemicals & Specialty Materials

Technologies Covered:

Wafer Fabrication

PCB Manufacturing

Packaging & Interconnects

Thin-film Deposition

Printing & Additive Electronics

Applications Covered:

Consumer Devices

Automotive & EVs

Telecommunications Infrastructure

Industrial Electronics

Healthcare & Medical Devices

Aerospace & Defense

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

Contents

1 EXECUTIVE SUMMARY

2 PREFACE

- 2.1 Abstract
- 2.2 Stake Holders
- 2.3 Research Scope
- 2.4 Research Methodology
 - 2.4.1 Data Mining
 - 2.4.2 Data Analysis
 - 2.4.3 Data Validation
 - 2.4.4 Research Approach
- 2.5 Research Sources
 - 2.5.1 Primary Research Sources
 - 2.5.2 Secondary Research Sources
 - 2.5.3 Assumptions

3 MARKET TREND ANALYSIS

- 3.1 Introduction
- 3.2 Drivers
- 3.3 Restraints
- 3.4 Opportunities
- 3.5 Threats
- 3.6 Technology Analysis
- 3.7 Application Analysis
- 3.8 Emerging Markets
- 3.9 Impact of Covid-19

4 PORTERS FIVE FORCE ANALYSIS

- 4.1 Bargaining power of suppliers
- 4.2 Bargaining power of buyers
- 4.3 Threat of substitutes
- 4.4 Threat of new entrants
- 4.5 Competitive rivalry

5 GLOBAL ELECTRONIC MATERIALS MARKET, BY MATERIAL TYPE

- 5.1 Introduction
- 5.2 Semiconductors
- 5.3 Conductive Materials
- 5.4 Dielectric/Insulating Materials
- 5.5 Substrates
- 5.6 Process Chemicals & Specialty Materials
 - 5.6.1 Photoresists
 - 5.6.2 Adhesives
 - 5.6.3 Encapsulants
 - 5.6.4 Etchants & Dopants

6 GLOBAL ELECTRONIC MATERIALS MARKET, BY TECHNOLOGY

- 6.1 Introduction
- 6.2 Wafer Fabrication
- 6.3 PCB Manufacturing
- 6.4 Packaging & Interconnects
- 6.5 Thin-film Deposition
- 6.6 Printing & Additive Electronics

7 GLOBAL ELECTRONIC MATERIALS MARKET, BY APPLICATION

- 7.1 Introduction
- 7.2 Consumer Devices
- 7.3 Automotive & EVs
- 7.4 Telecommunications Infrastructure
- 7.5 Industrial Electronics
- 7.6 Healthcare & Medical Devices
- 7.7 Aerospace & Defense

8 GLOBAL ELECTRONIC MATERIALS MARKET, BY GEOGRAPHY

- 8.1 Introduction
- 8.2 North America
 - 8.2.1 US
 - 8.2.2 Canada
 - 8.2.3 Mexico

8.3 Europe

8.3.1 Germany

8.3.2 UK

8.3.3 Italy

8.3.4 France

8.3.5 Spain

8.3.6 Rest of Europe

8.4 Asia Pacific

8.4.1 Japan

8.4.2 China

8.4.3 India

8.4.4 Australia

8.4.5 New Zealand

8.4.6 South Korea

8.4.7 Rest of Asia Pacific

8.5 South America

8.5.1 Argentina

8.5.2 Brazil

8.5.3 Chile

8.5.4 Rest of South America

8.6 Middle East & Africa

8.6.1 Saudi Arabia

8.6.2 UAE

8.6.3 Qatar

8.6.4 South Africa

8.6.5 Rest of Middle East & Africa

9 KEY DEVELOPMENTS

9.1 Agreements, Partnerships, Collaborations and Joint Ventures

9.2 Acquisitions & Mergers

9.3 New Product Launch

9.4 Expansions

9.5 Other Key Strategies

10 COMPANY PROFILING

10.1 Shin-Etsu Chemical Co., Ltd.

10.2 Merck KGaA

- 10.3 Dow Inc.
- 10.4 DuPont de Nemours, Inc.
- 10.5 Sumitomo Chemical Co., Ltd.
- 10.6 JSR Corporation
- 10.7 Entegris, Inc.
- 10.8 LG Chem Ltd.
- 10.9 BASF SE
- 10.10 Showa Denko Materials Co., Ltd.
- 10.11 Tokyo Ohka Kogyo Co., Ltd.
- 10.12 Henkel AG & Co. KGaA
- 10.13 SUMCO Corporation
- 10.14 KYOCERA Corporation
- 10.15 Cabot Microelectronics Corporation

List Of Tables

LIST OF TABLES

Table 1 Global Electronic Materials Market Outlook, By Region (2024-2032) (\$MN)

Table 2 Global Electronic Materials Market Outlook, By Material Type (2024-2032) (\$MN)

Table 3 Global Electronic Materials Market Outlook, By Semiconductors (2024-2032) (\$MN)

Table 4 Global Electronic Materials Market Outlook, By Conductive Materials (2024-2032) (\$MN)

Table 5 Global Electronic Materials Market Outlook, By Dielectric/Insulating Materials (2024-2032) (\$MN)

Table 6 Global Electronic Materials Market Outlook, By Substrates (2024-2032) (\$MN)

Table 7 Global Electronic Materials Market Outlook, By Process Chemicals & Specialty Materials (2024-2032) (\$MN)

Table 8 Global Electronic Materials Market Outlook, By Photoresists (2024-2032) (\$MN)

Table 9 Global Electronic Materials Market Outlook, By Adhesives (2024-2032) (\$MN)

Table 10 Global Electronic Materials Market Outlook, By Encapsulants (2024-2032) (\$MN)

Table 11 Global Electronic Materials Market Outlook, By Etchants & Dopants (2024-2032) (\$MN)

Table 12 Global Electronic Materials Market Outlook, By Technology (2024-2032) (\$MN)

Table 13 Global Electronic Materials Market Outlook, By Wafer Fabrication (2024-2032) (\$MN)

Table 14 Global Electronic Materials Market Outlook, By PCB Manufacturing (2024-2032) (\$MN)

Table 15 Global Electronic Materials Market Outlook, By Packaging & Interconnects (2024-2032) (\$MN)

Table 16 Global Electronic Materials Market Outlook, By Thin-film Deposition (2024-2032) (\$MN)

Table 17 Global Electronic Materials Market Outlook, By Printing & Additive Electronics (2024-2032) (\$MN)

Table 18 Global Electronic Materials Market Outlook, By Application (2024-2032) (\$MN)

Table 19 Global Electronic Materials Market Outlook, By Consumer Devices (2024-2032) (\$MN)

Table 20 Global Electronic Materials Market Outlook, By Automotive & EVs (2024-2032) (\$MN)

Table 21 Global Electronic Materials Market Outlook, By Telecommunications Infrastructure (2024-2032) (\$MN)

Table 22 Global Electronic Materials Market Outlook, By Industrial Electronics (2024-2032) (\$MN)

Table 23 Global Electronic Materials Market Outlook, By Healthcare & Medical Devices (2024-2032) (\$MN)

Table 24 Global Electronic Materials Market Outlook, By Aerospace & Defense (2024-2032) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

I would like to order

Product name: Electronic Materials Market Forecasts to 2032 – Global Analysis By Material Type
(Semiconductors, Conductive Materials, Dielectric/Insulating Materials, Substrates and
Process Chemicals & Specialty Materials), Technology, Application and By Geography

Product link: <https://marketpublishers.com/r/E530F13D8B03EN.html>

Price: US\$ 4,150.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer
Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click
button on product page <https://marketpublishers.com/r/E530F13D8B03EN.html>