

# **Sputtering Targets & Evaporation Materials Market Forecasts to 2030 – Global Analysis By Product Type (Sputtering Targets and Evaporation Materials), Material (Metal, Ceramic, Alloy and Advanced Materials), Technology, Application and By Geography**

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## **Abstracts**

According to Statistics MRC, the Global Sputtering Targets & Evaporation Materials Market is accounted for \$3.1 billion in 2024 and is expected to reach \$4.3 billion by 2030 growing at a CAGR of 5.1% during the forecast period. A solid substance used in physical vapor deposition that is subjected to high-energy ion bombardment in a vacuum chamber is called a sputtering target. Atoms that have been dislodged from the target surface by the bombardment move and deposit onto a substrate to create thin films. One kind of vaporization that takes place on liquid surfaces is evaporation. Molecules close to the surface that acquire sufficient energy to overcome vapor pressure escape into the surrounding air as gas when liquid molecules collide and exchange energy.

According to Japan Electronics and Information Technology Industries Association (JEITA), the production by the global electronics and IT industry was estimated at USD 3,436.8 billion in 2022.

Market Dynamics:

Driver:

Growing demand for electronics

The increasing demand for electronics is a key driver for the sputtering targets and evaporation materials market. With advancements in consumer electronics such as smartphones, tablets, and wearables, there is a rising need for high-performance materials that enhance device reliability and efficiency. The push for miniaturization and multifunctionality in electronics necessitates thin-film deposition processes using sputtering targets and evaporation materials. Additionally, the growth of semiconductor manufacturing and renewable energy technologies further boosts market demand.

Restraint:

Price volatility

The costs of technological development, complex manufacturing processes, and raw material procurement directly impact the end product's price. Fluctuating global supply-demand dynamics exacerbate this issue, making it challenging for manufacturers to maintain profitability. This cost variability restricts market growth by limiting accessibility for smaller players and increasing pressure on pricing strategies across the value chain.

Opportunity:

Strategic collaborations

Partnerships between manufacturers, research institutions, and technology providers facilitate innovation in material formulations and deposition techniques. These collaborations help address challenges such as cost efficiency, material purity, and sustainability. Moreover, joint ventures enable companies to expand their geographic reach and cater to emerging markets like Asia-Pacific, where demand for advanced electronics and renewable energy solutions is rapidly growing.

Threat:

Technological challenges

Technological challenges in achieving uniform thin-film deposition and optimizing material utilization threaten the growth of the sputtering targets and evaporation materials market. Issues such as low deposition efficiency, high wastage rates, and limitations in scaling up production hinder advancements in applications like semiconductors and solar panels. Additionally, rapid technological evolution requires

continuous R&D investments to stay competitive. These challenges can delay adoption rates and limit market expansion if not addressed effectively.

#### Covid-19 Impact:

The COVID-19 pandemic disrupted global supply chains, causing delays in production and procurement of sputtering targets and evaporation materials. Lockdowns led to reduced workforce availability and halted manufacturing activities in key sectors like electronics. Additionally, restrictions on non-essential goods affected demand temporarily. However, the pandemic accelerated digitalization trends, increasing long-term demand for semiconductors and electronic devices. As industries adapted through remote operations and supply chain diversification, the market began recovering steadily post-pandemic.

The sputtering targets segment is expected to be the largest during the forecast period

The sputtering targets segment is expected to account for the largest market share during the forecast period due to its extensive use in thin-film deposition processes across industries like semiconductors, electronics, and solar energy. High-purity metal targets enable precise coatings critical for microchips, displays, and photovoltaic cells. The segment's growth is driven by increasing investments in advanced manufacturing technologies and rising demand for miniaturized electronic components. Sputtering targets' versatility in creating uniform films with superior properties ensures their leading position in the market.

The metal segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the metal segment is predicted to witness the highest growth rate owing to its widespread application in semiconductors, electronics, and renewable energy industries. Metals like aluminum, copper and gold are valued for their excellent conductivity, thermal stability, and ability to form homogeneous thin films. The growing adoption of advanced technologies such as 5G networks and solar panels further drives demand for metal-based sputtering targets. Innovations in material science also contribute to this segment's rapid growth.

#### Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market share due to its dominance in semiconductor manufacturing and electronics production.

Countries like China, Japan, South Korea, and Taiwan lead in technological advancements and R&D investments. The region's strong industrial base supports high-volume production of sputtering targets and evaporation materials used in consumer electronics, solar panels, and automotive applications. This robust ecosystem solidifies Asia Pacific's leadership position.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR due to increasing investments in renewable energy projects and semiconductor manufacturing facilities. Governments across countries like India are promoting domestic production through favorable policies under initiatives like 'Make in India.' Additionally, rising consumer demand for advanced electronic devices drives regional growth further. The combination of expanding infrastructure and strategic investments ensures Asia Pacific's rapid market expansion.

Key players in the market

Some of the key players in Sputtering Targets & Evaporation Materials Market include Materion Corporation, ULVAC, Inc., Plansee SE, Tosoh Corporation, Hitachi Metals Ltd., JX Nippon Mining & Metals Corporation, Praxair Surface Technologies, Honeywell International, Inc., Heraeus Holding GmbH, Kurt J. Lesker Company, SCI Engineered Materials, Konfoong Materials International Co., Ltd., Soleras Advanced Coatings, Nichia Corporation, Umicore, Treibachner Industrie AG, Furuya Metal Co., Ltd. and Grinn Advanced Materials Co., Ltd.

Key Developments:

In November 2024, Tosoh Corporation has unveiled its development of a gallium nitride (GaN) sputtering target, a new product being manufactured at Tosoh Specialty Materials Corporation, a subsidiary based in Yamagata City, Japan. GaN, a thin film semiconductor material, is widely used in applications like LED lighting and compact rapid chargers due to its lower energy loss compared to other materials. GaN thin films are gaining traction in energy-efficient power semiconductors, especially for data centers, as well as in micro-LED technology for wearable displays.

In April 2024, JX Nippon Mining & Metals USA, Inc., an industry leader in semiconductor materials, announced the completion of a \$29 Million land acquisition deal in Mesa, Arizona. The 65-acre greenfield site will serve as JX's new base of

operations for its semiconductor sputtering target business serving the North American and European markets. Furthermore, it will propel JX's business development and become the center for advanced materials in North America.

#### Product Types Covered:

Sputtering Targets

Evaporation Materials

#### Materials Covered:

Metal

Ceramic

Alloy

Advanced Materials

#### Technologies Covered:

Sputtering

Evaporation

#### Applications Covered:

Semiconductors

Display

Data Storage

Solar Cells

Optical Coatings

Wear-Resistant Coatings

Decorative Coatings

Other 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 2022, 2023, 2024, 2026, and 2030
- 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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