

Global and U.S. Magnesium and Derivatives Market to Reach USD 58.0 Bn by 2034 | Analysis Report by TMR

Magnesium is a critical material in the context of lightweight engineering due to its superior strength-to-weight ratio.

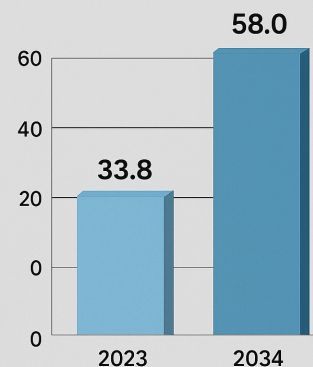
WILMINGTON, DE, UNITED STATES, September 19, 2025 / EINPresswire.com/ -- The [global and U.S. magnesium and derivatives market](#) was valued at USD 33.8 billion in 2023 and is projected to reach USD 58.0 billion by 2034, expanding at a CAGR of 5.1% from 2024 to 2034. This growth is driven by increasing demand across automotive, aerospace, construction, and electronics industries, where magnesium and its derivatives are widely used for their lightweight, durable, and versatile properties.

Global and U.S. Magnesium and Derivatives Market Outlook 2034

Global and U.S. magnesium and derivatives industry was valued at USD 33.8 Bn in 2023

is estimated to reach USD 58.0 Bn by the end of 2034

It is estimated to grow at a CAGR of 5.1% from 2024 to 2034



Magnesium and Derivatives Market

The global and U.S. magnesium and derivatives market is expected to grow at a CAGR of 5.6% over the forecast period, driven by the increasing demand for end-uses such as building and construction, chemicals, and oil and gas. Due to their properties, including lightweight nature, machinability, corrosion resistance, thermal conductivity, electromagnetic shielding, and strength, magnesium alloys are finding more applications in the aerospace and automotive sectors.



Magnesium and Derivatives
Industry Outlook
2024–2034: CAGR of 5.1%
Forecasted”

*Transparency Market
Research Inc.*

Dive Deeper into Data: Get Your In-Depth Sample Now!

https://www.transparencymarketresearch.com/sample/sample.php?flag=S&rep_id=86438

China is the largest producer of magnesite with nearly 13 million metric tons. Global and U.S. magnesium and derivatives market manufacturers are investing in new production technologies

to produce magnesium and derivatives at lower cost. Many manufacturers are increasing their production capacity.

Market Segmentation

The magnesium and derivatives market is segmented based on several factors, including product type, application, industry vertical, and region.

By Product: The market is primarily divided into magnesium metal and its derivatives. Key derivatives include magnesium oxide, magnesium carbonate, magnesium hydroxide, and magnesium chloride.

By Application: Major applications include die-casting, aluminum alloys, titanium reduction, and iron and steel making. The aluminum alloys segment held a dominant position in 2024, accounting for more than a 48.2% share of the global market. Magnesium's use in die-casting for lightweight automotive components is also a significant application.

By Industry Vertical: The key end-use industries are automotive, aerospace, construction, chemicals, pharmaceuticals, and agriculture. The automotive sector held a dominant share of over 42.2% in 2024, driven by the need for lighter materials to improve fuel efficiency and support the growth of electric vehicles.

By Region: The market is geographically segmented into North America, Europe, Asia Pacific, Latin America, and the Middle East & Africa.

Regional Analysis

The Asia Pacific region dominates the global magnesium and derivatives market, holding a significant share of approximately 33.8% in 2023. This is due to the region's strong industrial base, rapid urbanization, and the presence of major producers like China, which is the world's leading producer and consumer of magnesium. The U.S. and North America as a whole also represent a substantial market, accounting for 18% of the global market due to a strong automotive and aerospace industry.

Market Drivers and Challenges

Drivers

Growing Demand for Lightweight Materials: The primary driver is the increasing demand for lightweight materials in the automotive and aerospace sectors.

Using magnesium alloys reduces the weight of vehicles and aircraft, which in turn improves fuel efficiency and reduces carbon emissions.

Expansion of End-Use Industries: The market is propelled by the continuous growth of end-use sectors, including construction, chemicals, and pharmaceuticals, where magnesium derivatives are used in a variety of applications.

Technological Advancements: The development of new applications for magnesium, such as in 3D printing and batteries, and the emergence of magnesium-based solid-state hydrogen storage, are creating new growth opportunities.

Challenges

Corrosion Rate and Creep Strength: A major challenge is the inherent low corrosion resistance and low creep strength of magnesium alloys, which can limit their use in certain applications.

High Production Costs: The production of high-purity magnesium and some derivatives can be energy-intensive and costly, posing a hurdle, especially in developing regions.

Environmental Concerns: The traditional Pidgeon process for magnesium production is highly carbon-intensive, producing approximately 37 kg of CO₂ per kg of magnesium. This raises environmental concerns and puts pressure on the industry to adopt cleaner production methods.

Future Outlook and Trends

The market is expected to continue its upward trajectory, fueled by the push for sustainability and the need for high-performance materials. Key trends include:

Rising Use in Electric Vehicles (EVs): As the EV market expands, the demand for lightweight materials like magnesium for battery casings and other components will grow significantly.

Shift to Cleaner Production: Increasing regulatory pressure and a focus on sustainability are driving the adoption of more eco-friendly production processes like electrolysis, which will likely gain traction over the coming decade.

Emergence of New Applications: New applications in green building materials, eco-friendly de-icing, and advanced medical technologies (e.g., orthopedic implants) are anticipated to create new revenue streams.

Key Market Study Points

Market Value: The market is on a robust growth path, moving from a multi-billion dollar valuation in 2024 towards a projected value of nearly US\$ 60 billion by 2034.

Dominant Regions: Asia Pacific and North America are the leading regions in terms of market share, with China and the U.S. being major consumers and producers (or importers, in the case of the U.S.).

Dominant Segments: Die-casting and aluminum alloys applications, along with the automotive and aerospace end-use industries, are the largest segments.

Buy this Premium Research Report:

https://www.transparencymarketresearch.com/checkout.php?rep_id=86438<ype=S

Competitive Landscape

The global magnesium and derivatives market is characterized by a mix of large international corporations and regional players. The competitive landscape is shaped by factors such as raw material availability, production technology, and strategic collaborations. Key players are focusing on R&D to develop innovative products and more sustainable production methods. Companies are also engaging in mergers, acquisitions, and strategic partnerships to strengthen their market position and expand their geographic reach.

Recent Developments

Sustainable Production: Companies are investing in new, low-carbon production technologies. For instance, in 2024, Alcoa Corporation unveiled an eco-friendly magnesium production process that reduces carbon emissions by 35%.

Strategic Partnerships: Key players are forming collaborations to secure supply chains and develop new alloys. For example, Boeing announced a partnership with US Magnesium to develop advanced alloys for its next-generation aircraft to improve fuel efficiency.

Expansion of Facilities: Major producers are expanding their production capacities to meet rising demand. In 2024, Shanxi Yinguang Magnesium Industry Group announced a significant investment to expand its magnesium alloy production facilities.

Explore Latest Research Reports by Transparency Market Research:

Bamboo Engineered Wood Market - <https://www.transparencymarketresearch.com/bamboo-engineered-wood-market.html>

Sludge Dewatering Equipment Market - <https://www.transparencymarketresearch.com/sludge-dewatering-equipment-market.html>

Tire Pyrolysis Products Market - <https://www.transparencymarketresearch.com/tire-pyrolysis-products-market.html>

Plastic Compounding Market - <https://www.transparencymarketresearch.com/plastic-compounding-market.html>

Silage Film Market - <https://www.transparencymarketresearch.com/silage-film-market-report.html>

About Transparency Market Research

Transparency Market Research, a global market research company registered at Wilmington, Delaware, United States, provides custom research and consulting services. Our exclusive blend of quantitative forecasting and trends analysis provides forward-looking insights for thousands of decision makers. Our experienced team of Analysts, Researchers, and Consultants use proprietary data sources and various tools & techniques to gather and analyses information.

Our data repository is continuously updated and revised by a team of research experts, so that it always reflects the latest trends and information. With a broad research and analysis capability, Transparency Market Research employs rigorous primary and secondary research techniques in developing distinctive data sets and research material for business reports.

Contact:

Transparency Market Research Inc.
CORPORATE HEADQUARTER DOWNTOWN,
1000 N. West Street,
Suite 1200, Wilmington, Delaware 19801 USA
Tel: +1-518-618-1030
USA – Canada Toll Free: 866-552-3453
Website: <https://www.transparencymarketresearch.com>
Email: sales@transparencymarketresearch.com
Follow Us: LinkedIn | Twitter | Blog | YouTube

Atil Chaudhari
Transparency Market Research Inc.
+1 518-618-1030
[email us here](#)

This press release can be viewed online at: <https://www.einpresswire.com/article/850640256>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

