SMM Shanghai Metals Market

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Europe Compete to Develop New Tracks for Magnesium Alloys and Magnesium Batteries [SMM Survey]

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[SMM Survey: US Producer Bankruptcy Triggers Supply Chain Risks, China and Europe Compete to Develop New Magnesium Alloy and Magnesium Battery Tracks] Recently, US Magnesium, the only primary magnesium producer in the United States, filed for bankruptcy due to environmental disputes, which may increase the US's reliance on magnesium imports from China and Russia, raising concerns about national security and supply chains. Meanwhile, China's Yimeitai exported its first complete set of high-end magnesium alloy equipment to South Korea, achieving a reverse transfer of technology and highlighting China's leading advantage in the application of magnesium alloys. The European Union has launched the HighMag project, collaborating with multiple countries on R&D for magnesium battery technology to compete for dominance in next-generation ESS solutions. The global magnesium industry is facing multiple challenges involving environmental protection, supply chains, and technological innovation, further clarifying the competitive landscape among China, the US, and Europe in strategic resources and key technology areas.

Major US Magnesium Producer Files for Bankruptcy, National Security and Environmental Protection at Odds

The only primary magnesium metal producer in the US, U.S. Magnesium, announced on September 10, 2025, that it had filed for Chapter 11 bankruptcy protection. The bankruptcy filing stems from a long-standing environmental dispute with the state of Utah, which, based on an academic study, sought to terminate the company's operating lease in the Great Salt Lake area, alleging that halide emissions from its plant were one of the main culprits behind local winter smog pollution. If the company ceases operations, the US will have to rely more heavily on imports from China and Russia, as over 85% of global magnesium production currently comes from China, raising significant supply chain and national security concerns. The company stated that the bankruptcy filing is aimed at restructuring its business to maintain operations and fulfill its commitment to government environmental management.

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officially set sail for the Optimo customer site in South Korea. This delivery not only marks the overseas venture of a single piece of equipment but also represents the first comprehensive solution exported to South Korea, encompassing robots, conveyors, mold temperature machines, trimming machines, and hot forming machines. The equipment adopts innovative semi-solid injection molding technology, eliminating the need for traditional high-temperature melting processes, directly transforming magnesium alloy granules into finished products, offering safety, energy efficiency, and environmental protection advantages. It has also passed the stringent KCs certification in South Korea, meeting international standards. This breakthrough signifies that domestic high-end magnesium alloy equipment has successfully broken through international technological barriers, achieving a strategic transformation from "technology introduction" to "solution export." In the context of accelerating global lightweight trends, this technology can be widely applied in 3C electronics, automotive manufacturing, medical devices, outdoor equipment, and humanoid robots, providing the global manufacturing industry with a fast-forming solution comparable to injection molding, helping customers achieve green production and cost reduction while improving efficiency.

EU Launches HighMag Project to Develop Next-Generation Magnesium Battery ESS Solutions

The four-year European research program, HighMag, officially kicked off, funded by the EU's Horizon Europe program and supported by CINEA. It brings together 13 academic and industrial partners from multiple European countries, Switzerland, and Israel, aiming to address urgent challenges in the field of energy storage: developing sustainable alternatives to lithium-ion technology. At the core of the project is the R&D of rechargeable magnesium batteries (RMBs) – a fifth-generation battery technology that leverages the abundant natural reserves, lower costs, and higher safety of magnesium, positioning it as an ideal solution for next-generation mobility and other high-energy consumption applications.

Data Source Statement: Except for publicly available information, all other data are processed by SMM based on publicly available information, market communication, and relying on SMM's internal database model. They are for reference only and do not constitute decision-making recommendations.

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