

Molybdenum - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2026 - 2031)

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Report description:

Molybdenum Market Analysis

The Molybdenum Market was valued at 317 million tons in 2025 and estimated to grow from 330.12 million tons in 2026 to reach 404.35 million tons by 2031, at a CAGR of 4.14% during the forecast period (2026-2031). Steelmaking remained the primary outlet, as high-strength, low-alloy (HSLA) grades spread through construction, automotive, and energy infrastructure. Chemical uses advanced on the back of rising catalyst demand for clean fuels, emissions control, and CO₂ conversion. Geopolitical exposure intensified after China's February 2025 export-control notice on critical minerals, including molybdenum, a policy shift that threatens to alter trade routes and price formation worldwide. Tight supply risk is prompting steelmakers, oil-and-gas operators, renewable-energy OEMs, and EV power-electronics suppliers to re-evaluate sourcing strategies, expand recycling, and invest in substitute-proof alloy designs.

Global Molybdenum Market Trends and Insights

Surge in High-Strength Low-Alloy Steel Demand

Rapid infrastructure rollouts and the push for lighter yet stronger vehicles have made HSLA steel a central growth lever for the molybdenum market. Adding 0.5-1% Mo boosts yield strength by up to 20%, enhances low-temperature toughness, and reduces susceptibility to sulfide stress corrosion. These mechanical gains allow thinner gauges and longer service life in bridges, tunnels, and high-rise superstructures. Automakers, meanwhile, use HSLA body-in-white parts to shave vehicle mass and raise fuel

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economy or EV range. New research on (Ti, Mo)C precipitation confirms improved resistance to cracking in sour environments, a property valued by pipeline operators. As governments channel stimulus into transport and renewable grids, HSLA grades are capturing a growing slice of steel output, magnifying baseline demand for molybdenum.

Increasing Renewable-Energy Installations Requiring Mo-Based Alloys

Utility-scale wind and hydropower assets use Mo-containing martensitic steels and superalloys to survive salt spray, cyclic loading, and cavitation. Offshore turbine towers and nacelle internals must tolerate humidity and chloride attack over 25-year lifecycles, a job handled by Mo-alloyed plate and castings. Mohrbacher's 2024 study showed that thermomechanically processed Mo-bearing steels sustain high strength and fracture toughness even after prolonged exposure to seawater. In power converters, molybdenum heatspreaders match silicon's thermal expansion, serving as reliable bases for insulated-gate bipolar transistor (IGBT) modules used in wind farm inverters. Government clean-energy targets and record auction volumes for offshore wind impose a structural uplift on this driver.

High Cost of Molybdenum

Price volatility disturbs budget cycles, prompts substitution with tungsten or niobium where feasible, and forces smaller buyers to pay risk premiums. Supply tightness linked to Chinese controls compounds the effect, keeping feedstock invoices unpredictable for steel minimills, foundries, and catalyst producers, influencing in the molybdenum market.

Other drivers and restraints analyzed in the detailed report include:

Intensifying Deep-Water Oil and Gas Drilling Boosting Corrosion-Resistant Mo Alloys
Adoption of High-Temperature Mo Components for Electric-Vehicle Power Electronics
Government Regulations Concerning Mining

For complete list of drivers and restraints, kindly check the Table Of Contents.

Segment Analysis

Steel retained the lion's share of the molybdenum market, accounting for 70.62% of global offtake in 2025. High-temperature petroleum, LNG, and chemical plants demand ferritic and austenitic stainless varieties enriched with 2-4% Mo to resist chloride cracking. Linepipe specifications for sour gas routinely call for up to 1% Mo, allowing thinner walls and lower welding costs.

Chemicals, although smaller at present, represent the fastest-growing outlet at a 4.62% CAGR through 2031. Hydrodesulfurization (HDS) catalysts based on Co-Mo/Al₂O₃ remove sulfur from diesel and jet fuel to meet ultra-low sulfur directives, while MoO₃ screws into catalysts that convert CO₂ and renewable feedstock into synthetic fuels. This momentum positions chemicals to chip away share from steel in the latter half of the forecast window, lending depth to the molybdenum market.

The Molybdenum Market Report is Segmented by End Product (Steel, Chemical, Foundry, and More), Product Form (Molybdenum Concentrates, Roasted Molybdenum, Ferromolybdenum, and More), End-Use Industry (Oil & Gas, Chemical & Petrochemical, Automotive, Industrial, Building & Construction, and More), and Geography (Asia-Pacific, North America, Europe, Rest of the World). The Market Forecasts are Provided in Terms of Volume (Tons).

Geography Analysis

Asia-Pacific held 53.60% of global throughput in 2025 as China, Japan, South Korea, and India escalated steel output, vehicle assembly, and advanced-electronics fabrication. The region's 4.71% CAGR stems from Belt-and-Road infrastructure, energy

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pipelines, and shipbuilding. Beijing's February 2025 export-license regime for molybdenum puts downstream buyers on allocation watch and accelerates inventory build-ups.

North America is leveraging resource endowment in the United States, which mined 33,000 tons in 2024. A March 2025 executive order now seeks to fast-track mining permits, potentially lifting North American self-reliance. Europe, though supply-short, retains robust demand driven by German and Italian stainless mills and EV-component plants.

The European Commission's recycled-steel quotas propose that 25% of steel in new cars originate from scrap by 2030, stimulating molybdenum recovery from automotive shredders. Middle-East refiners import Mo for hydro-treating catalysts, while African copper porphyry projects contribute by-product molybdenum that feeds spot cargoes into Europe and Asia.

List of Companies Covered in this Report:

Air Liquide Anglo American plc Antamina Antofagasta plc Centerra Gold Inc. China Molybdenum Co. Ltd. Codelco Freeport-McMoRan GRUPO MEXICO HONGDA GROUP Jiangxi Copper Corporation JINDUICHENG MOLYBDENUM CO.,LTD. KAZ Minerals KGHM Moltun International MOLYMET SA Multi Metal Development Limited Rio Tinto

Additional Benefits:

The market estimate (ME) sheet in Excel format
3 months of analyst support

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