Graphite - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

Market Report | 2025-07-01 | 160 pages | Mordor Intelligence

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Report description:

Graphite Market Analysis

The Graphite Market size is estimated at USD 5.73 billion in 2025, and is expected to reach USD 9.19 billion by 2030, at a CAGR of 9.89% during the forecast period (2025-2030). Robust battery demand, structural shifts in steelmaking, and intensifying efforts to localize critical-material supply chains collectively underpin this trajectory. The graphite industry is experiencing a decisive shift from a bulk commodity sector to a strategic materials arena supporting decarbonization across mobility, power, and heavy industry. Natural-resource concentration in Asia-Pacific and policy incentives in North America and Europe are catalyzing new investment in mining, processing, and recycling assets. Simultaneously, the rising cost of capital and stricter environmental scrutiny are encouraging joint ventures that spread risk while ensuring responsible sourcing. A fresh inference that emerges is that contract structures are lengthening off-take agreements now regularly span 10-plus years, signaling buyers' willingness to lock in feedstock security even at higher prices.

Global Graphite Market Trends and Insights

Augmenting Demand from the Lithium-ion Battery Industry

Battery manufacturers now account for the single largest slice of the graphite market share, and the segment's 17%-plus CAGR indicates sustained acceleration through the decade. Intensifying price competition among electric-vehicle (EV) brands magnifies the cost sensitivity of anodes, tilting preference toward natural graphite that offers a multithousand-dollar per-tonne advantage

over synthetic alternatives. This cost gradient is widening as energy prices rise, because synthetic production requires temperatures of 3,000 C, whereas natural purification usually runs below 1,800 C. One inference observable from recent tender data is that automakers are accepting slightly lower first-cycle efficiency in exchange for natural graphite's better ESG profile, illustrating how carbon-footprint metrics have become commercially material.

Increase in Steel Production in Asia and the Middle East

The shift toward electric-arc furnaces (EAF) for emissions abatement is materially lifting demand for ultra-high-power graphite electrodes. Machinery and automotive applications now drive a larger share of steel consumption, implicitly elevating electrode durability and conductivity requirements. A fresh inference is that electrode suppliers can certify lower sulfur and nitrogen contents, secure premium price realizations because EAF operators see a direct link between electrode purity, tap-to-tap time, and overall furnace energy efficiency.

Stringent Environmental Regulations

Carbon-pricing regimes and Scope-3 disclosure frameworks are prompting producers to adopt renewable power and to pilot low-temperature catalytic graphitization developed by the U.S. Department of Energy, which halves energy use and compresses production cycles from weeks to hours.

Other drivers and restraints analyzed in the detailed report include:

Increase in Natural Graphite Recycling Initiatives / Growing Demand from the Electronics Industry / Limited Availability of High-Quality Natural Graphite /

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

Segment Analysis

Natural graphite is rapidly gaining market share despite synthetic graphite's current dominance at 58.09% of the market in 2024. Fresh purification processes such as caustic baking combined with microwave heating now deliver 99.95% purity, closing the historical performance gap. A clear inference is that life-cycle-assessment data, which now feature in OEM purchasing dashboards, are tipping procurement policies in favor of natural graphite even when immediate cell-level energy density is marginally lower.

Supply-security concerns amplify interest in biomass-derived synthetic graphite, which could reduce dependence on mined natural graphite and petroleum needle-coke routes. Pilot studies confirm that lignin-based precursors yield turbostratic carbon with an interlayer spacing conducive to lithium intercalation. The fresh inference is that dual-sourcing strategies, natural flake plus bio-graphite, are surfacing as an attractive hedge against geopolitical disruption and carbon-price escalation.

The Graphite Market Report Segments the Industry by Type (Natural Graphite and Synthetic Graphite), Application (Electrodes, Refractories, Casting, and Foundries, Batteries, Lubricants, and Other Applications), End-User Industry (Metallurgy, Electronic, Automotive, and Other End-User Industries), and Geography (Asia-Pacific, North America, Europe, South America, and Middle-East and Africa).

Geography Analysis

Asia-Pacific currently captures 55.42% graphite market share and registers the fastest regional CAGR at above 11%. China's dominance stems from integrated clusters that combine flake-graphite mines, purification lines, and spheronization plants into a

single logistics corridor. A fresh inference is that ASEAN nations such as Indonesia and Malaysia are courting mid-stream processors, hoping to replicate China's cluster model and thus create alternative nodes in the value chain.

North America is transitioning from an import-dependent consumer base to an emerging producer, helped by the Inflation Reduction Act's tax credits that reimburse 10% of qualified anode-component costs. Europe's graphite industry is shaped by regulatory leadership rather than resource endowment. Mandatory minimum recycled-content thresholds in batteries are pushing gigafactories to sign multi-year supply contracts with recyclers.

List of Companies Covered in this Report:

Asbury Carbons / BTR New Material Group Co., Ltd. / GrafTech International / Graphit Kropfmuhl GmbH / Imerys / Mason Resources Inc. / Mersen / Nippon Kokuen Group / Northern Graphite / POCO / Resonac Holdings Corporation / SGL Carbon / Shanghai Shanshan Technology Co., Ltd. / Syrah Resources Limited / Tokai Carbon Co., Ltd. / Triton Minerals Limited /

Additional Benefits:

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

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