

Graphite - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts 2019 - 2029

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Report description:

The Graphite Market size is estimated at USD 3.62 billion in 2024, and is expected to reach USD 4.63 billion by 2029, growing at a CAGR of 5% during the forecast period (2024-2029).

The COVID-19 outbreak presented a challenging industry arena for the graphite market, as it slowed down the demand from the key end-user industries, such as electronics, metallurgy, and automotive (including electric vehicles), owing to the lockdown measures of the pandemic. Furthermore, the production facilities of electronic parts were halted due to the logistics slowdown and unavailability of the workforce across the world. However, the sector has been recovering well since restrictions were lifted and operations were resumed.

Key Highlights

- -Over the short term, augmenting demand from the burgeoning lithium-ion battery industry and an increase in steel production in Asia and the Middle East are significant factors driving the growth of the market studied.
- -However, stringent environmental regulation is a key factor anticipated to restrain the growth of the target market over the forecast period.
- -Nevertheless, the increasing application of graphite in green technologies is likely to create lucrative growth opportunities for the global market soon.
- -Asia-Pacific is estimated to witness healthy growth over the assessment period in the graphite market due to the wide usage of graphite in countries such as India, China, Japan, and others.

Graphite Market Trends

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- The metallurgy segment of the market studied includes electrodes and refractories, casting, and foundries. Graphite Electrodes are used in Electric Arc Furnaces (EAF) and ladder furnaces (LF) for steel production, aluminum production, ferroalloy production, and the smelting process.
- The rising steel production using the electric arc furnace process is expected to increase the demand for graphite. In refractories, natural graphite is used to manufacture crucibles and mag-carbon bricks.
- Graphite is also used as a lining in steel converters and electric arc furnaces. In steel molding applications, different forms of alumina-graphite are used in continuous casting ware, such as nozzles and troughs.
- The rising crude steel and aluminum production worldwide is expected to drive the demand for graphite in metallurgical applications.
- In April 2023, the World Steel Association released its Short Range Outlook (SRO) steel demand forecast for 2023 and 2024, which stated that the steel demand would see a 2.3% rebound to reach 1,822.3 Mt in 2023, and it is forecasted to grow by 1.7% in 2024 to reach 1,854.0 Mt. In addition, the total world crude steel production was 1,878.5 Mt in 2022, a 4.2% decrease compared to 2021.
- Furthermore, according to the International Aluminum Institute, global aluminum production rose by a marginal 2.0% in 2022 compared to a growth rate that was down from 2.7% in 2021 and the slowest since 2019.
- European Steel Association (EUROFER) has adjusted its forecast for the consumption of steel products in the European Union in 2022. In comparison to the February 2022 forecast and the expectation of regional metal consumption growth of 3.2%, there is a decline of around 1.9% expected by the association. All these factors are expected to increase the demand for graphite from the metallurgy end-user industry.
- Therefore, all the above-mentioned factors are responsible for driving the growth of the graphite market.

Asia-Pacific Region to Dominate the Market

- China is one of the largest graphite manufacturers globally, mainly due to the immense demand from budding sectors like lithium-ion battery production, electronics, steel production, the solar industry, and the nuclear industry. According to a US Geological Survey, the country accounted for 820 thousand tons of graphite mine production in 2021.
- During January-October 2022, China, through capacity swaps, added 28.8 million mt/year of new pig iron production capacity and 23.1 million mt/year of new crude steel production capacity. This resulted in a net increase of 8.3 million mt/year of pig iron production capacity and 6 million mt/year of new crude steel production capacity for 2022.
- The construction sector is the key factor driving the demand growth for steel in the country, which accounts for almost two-thirds of the country's steel consumption.
- Graphite is also used in lithium-ion batteries to serve as the node material. Japan is one of the prominent regions for the lithium battery market, along with China and Korea, which occupy a 96% market share in battery capacity shipments. However, manufacturing in Japan has significantly slowed down due to the recent crisis.
- The steel production in Japan ranked third largest globally, accounting for around 96 million tons in 2022, up by 16% from 2021. Thus, growth in steel production is likely to reduce the demand for graphite in the country.
- Furthermore, the country plans to increase its nuclear energy share in total energy up to at least 20% by 2030. The country's dependence on nuclear power to generate electricity is expected to drive the market during the forecast period.
- By 2027, the country has planned to install at least 14 GW of solar energy, which is expected to reach more than 100 GW at the end of the forecast period. The government is also hugely pushing household solar power through subsidy systems like feed-in-tariff (FIT), further boosting the country's solar power.

- Due to all such factors, the market for graphite in the region is expected to have a steady growth during the forecast period.

Graphite Industry Overview

The graphite market is consolidated in nature, with the top five players accounting for a significant share. The major players (not in any particular order) include Betterui New Materials Group Co. Ltd., Shenzhen Xiangfenghua Technology Co. Ltd., Shanghai Shanshan Technology Co. Ltd., Syrah Resources Limited, and Jiangxi Zichen Technology Co. Ltd., among others.

Additional Benefits:

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

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