

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

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Report description:

The global expandable graphite market size is estimated at 82.61 kilotons in 2024 and is expected to reach 119.370 kilotons by 2029, growing at a CAGR of 7.64% during the forecast period.

Key Highlights

-Over the medium term, factors such as the increasing adoption of expandable graphite as a flame retardant in the construction industry, increasing demand for non-halogenated flame retardants, and growth in the consumer electronics market are expected to increase the gloal consumption of expandable graphite.

-However, it is estimated that the demand for expandable graphite may decrease shortly due to the limited supply of graphite. Furthermore, limited supply and rising prices are also expected to hamper the market.

-Nevertheless, increasing bans on hazardous refractories such as brominated or asbestos refractories in buildings and gaskets are expected to provide new opportunities for the expanded graphite market.

-In terms of revenue, Asia-Pacific is expected to dominate the global market during the forecast period.

Expandable Graphite Market Trends

The Flame Retardant Segment is Anticipated to Hold a Significant Share

- Expandable graphite is a stratiform graphite and contains acids between each stratum. When heated, an acid generates gas, and these stratiforms are expanded, which enables to put off a fire by cutting off the supply of air.

- Flame retardants are intended to limit, slow, or prevent the spread of fires. Whether in upholstered furniture, car seats, or carpets, flame retardants are used wherever there are potential sources of fire. Expandable graphite is particularly suitable as a flame-retardant additive.

- Expandable graphite is widely used as a flame retardant in different industries due to its ability to expand during heating. A few industries include building and construction, electronics, automotive, and textiles.

- In North America, the United States has a major share in the construction industry. Besides the United States, Canada and Mexico contribute significantly to the construction sector investments. According to the US Census Bureau, the value of new private warehouse construction in 2022 stood at USD 61.53 billion, 24.6% higher than the USD 1,279.5 billion in 2021.

- According to the German Federal Statistics Office, the German clothing industry recorded a revenue of around EUR 6.8 billion in 2022, compared to EUR 5.7 billion in 2021. Moreover, the revenue recorded from the German textile industry in 2022 was approximately EUR 12.79 billion, which was EUR 11.8 billion in 2021.

- All the above factors are expected to drive the global expandable graphite market during the forecast period.

Asia-Pacific Region to Dominate the Market

- In the Asia-Pacific region, China accounts for the largest economy in terms of GDP. According to the IMF, the country's real GDP grew 8.4% annually in 2021, primarily driven by the gradual resumption of industrial activities and import-export trade. However, it declined to 3.0% in 2022. The country's GDP is expected to grow 5.2% in 2023.

China is one of the major countries in the region and has a major consumption of expandable graphite for various applications.
In 2022, Nordmann, in partnership with ADT, set up a new production plant southwest of Beijing. The new production facility has an operating permit for the next 30-40 years and is installed with a modern and centralized water treatment system. The distribution center for raw graphite is located in the same chemical park, ensuring a faster supply of the most important raw material for producing the expandable graphite.

- The use of expandable graphite is an exceptionally valuable and especially well-known element for the batteries used in various industries. In 2022, Clariant announced the manufacturing of a second line of patent-protected halogen-free Exolit OP flame retardants at the future Daya Bay plant in the country. The company invested around CHF 40 million (~USD 45.6 million) to expand access to innovative and sustainable fire protection solutions and related technical expertise to support the significant growth of engineering plastics applications in e-mobility and electrical and electronic segments.

- India is one of the largest emerging markets in the world in various industries. The country has seen various applications of expandable graphite such as electric vehicle batteries, flame retardants, flexible coils, and graphene.

- In 2022, an Australian graphite mine developer Evion Group (Formerly known as Blackearth) and an Indian graphite producer Metachem acquired a 5-acre site in Pune to set up a downstream graphite processing plant under their joint venture.

- The JV, known as Panthera Graphite Technologies, can produce 2,000 - 2,500 tons per annum of expandable graphite in the initial stages (first three years). It will then expand production capacity to 4,000 - 5,000 tons per annum from the fourth year. The plant is expected to be commissioned in November 2023.

- All the abovementioned factors are expected to boost the demand for the market studied in the country during the forecast period.

Expandable Graphite Industry Overview

The expandable graphite market is fragmented in nature. Some major graphite manufacturers in the market include (in no particular order) SGL Carbon, AMG Mining AG, Durrans Group, Nacional de Grafite, and GrafTech International Ltd.

Additional Benefits:

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

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