

Technical Ceramics Market - Growth, Trends, Covid-19 Impact, and Forecasts (2023 - 2028)

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Report description:

The technical ceramics market size is projected to register a CAGR of over 7% during the forecast period (2022-2027).

The market was negatively impacted by COVID-19 in 2020. However, the market has now been estimated to have reached pre-pandemic levels and is expected to grow steadily in the future.

Key Highlights

Over the short term, the market is driven by factors such as increasing demand from the medical industry. The growth in end-user applications in the automotive industries on account of the rising demand for electric vehicles is expected to drive the demand for the market during the forecast period.

High capital costs and properties such as brittleness and lack of technical ceramics are likely to hinder the market growth.

Technical ceramics are used to coat the wind turbine components to protect them against intense conditions of heat, dust, moisture, and UV radiation, which can cause high corrosion. The rising demand for clean energy generation is likely to drive the market.

Increased demand for industrial applications (metallurgy and industrial machinery) is projected to act as an opportunity for the market in the future.

Technical Ceramics Market Trends

Increasing Demand from the Medical Industry

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Technical ceramics are used in a wide range of medical devices, such as lithotripters and ultrasonic cleaners, and in dental ceramics in the field of dentistry.

Another major application of technical ceramics is in bioceramics, where it is used in artificial organ implants, especially hip joints.

The replacement of chemotherapy with radioactive glass microspheres for liver cancer patients, ceramic-based orthodontic braces, biocompatible coatings, and advanced drug delivery systems for cardiovascular stents and other implantable medical devices and composite layers for gene therapy are a few other developing applications of technical ceramics.

The number is anticipated to be higher in Europe (nearly 20%) and Japan (approximately 30%). Among the factors contributing to increased life expectancy are enhanced living conditions, improved sanitation, better prevention of communicable diseases, and increasing access to medicine and better sanitation products.

Europe comprises only one-eighth of the total world population but has around one-quarter of the global total of cancer cases, with some 3.7 million new patients per year.

Although more than 40% of cancer deaths can be prevented, cancer accounts for 20% of deaths in the European Region.

The rising prevalence of chronic diseases and the rapidly aging population worldwide are projected to increase the demand for medical implants, which will drive the demand for technical ceramics from the medical industry during the forecast period.

China to Dominate the Asia-Pacific Market

China has the world's largest electronics production base. Electronic products, such as smartphones, TVs, wires, cables, portable computing devices, gaming systems, and other personal electronic devices, recorded the highest growth in the electronics segment. The country serves not only domestic demand for electronics but also exports electronic output to other countries. In 2020, the revenue of consumer electronics in China amounted to over USD 150 billion, an increase of more than 20 billion since the previous year, and is expected to generate a revenue of USD 175 billion by 2025.

Chinese solar panel manufacturers are formulating output-boosting innovations to ensure continued survival in the market. For instance, JinkoSolar Holding is currently developing solar modules with a back sheet that can generate power from light being reflected off the ground.

The world's biggest solar products maker and solar power generator brought 54.88 GW of new solar power into operation in 2021, taking the total installed capacity to 306 GW despite a supply disruption of raw materials. China is also expected to add 75 to 90 gigawatts (GW) of solar power in 2022.

The medical device market in China is considered one of the fastest-growing sectors and was estimated to be around USD 95 billion by the start of 2021.

Based on the aforementioned aspects, China is expected to dominate the market during the forecast period.

Technical Ceramics Market Competitor Analysis

The technical ceramics market is partially fragmented in nature. Some of the major players in the market (in no particular order) include 3M, Morgan Advanced Materials, CoorsTek Inc., KYOCERA Corporation, and NGK SPARK PLUG CO. LTD.

Additional Benefits:

The market estimate (ME) sheet in Excel format

3 months of analyst support

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