

Advanced Ceramics Market Report by Material Type (Alumina, Titanate, Zirconia, Silicon Carbide, and Others), Class Type (Monolithic Ceramics, Ceramic Coatings, Ceramic Matrix Composites, and Others), End Use Industry (Electrical and Electronics, Medical, Transportation, Defense and Security, Chemical, and Others), and Region 2024-2032

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Abstracts

The global advanced ceramics market size reached US\$ 104.4 Billion in 2023. Looking forward, IMARC Group expects the market to reach US\$ 195.8 Billion by 2032, exhibiting a growth rate (CAGR) of 7% during 2024-2032.

Advanced ceramics are inorganic and non-metallic solids produced from highly refined and purified powders. Some commonly used advanced ceramics include alumina, titanate, zirconia, silicon carbide, and aluminum and silicon nitride. They are widely used in rotors, combustors, furnace heaters, hot gas filtration, fuel cell membranes, gas turbine airfoils, diesel engine filters, and fuel injectors. As compared to conventional ceramics, advanced ceramics have higher strength, stability, abrasion and chemical resistance, and can withstand extreme temperatures. They are also cost-effective and lightweight, offer high performance, improve productivity, and reduce operating costs. As a result, advanced ceramics are extensively used in aerospace, defense, industrial processing, and power generation industries.

Advanced Ceramics Market Trends:

The global advanced ceramics market is primarily being driven by significant growth in the electrical and electronics industry. Advanced ceramics are widely used to produce various electronic components, such as transistor dielectrics, insulators, capacitors,

integrated circuit (IC) packages, and piezoelectric components. Apart from this, increasing product demand in the automotive industry to manufacture spark plugs, clutches, engine filters, sensors for electronic controls, and heat-resistant engine parts is providing a considerable boost to market growth. Additionally, the introduction of advanced ceramics produced from eco-friendly processes and naturally occurring minerals due to the rising concerns regarding environmental degradation is providing an impetus to market growth. Moreover, the widespread product adoption for manufacturing components of various emerging and energy-intensive technologies, such as artificial intelligence (AI), Internet of things (IoT), and fifth generation (5G) telecommunication, due to its durability, low power consumption, non-volatility, and high speed is acting as another growth-inducing factor. Besides this, extensive product utilization in the medical industry, continuous research and development (R&D) activities, and rising product incorporation in military armor and protection equipment are supporting the market toward growth.

Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global advanced ceramics market report, along with forecasts at the global, regional and country level from 2024-2032. Our report has categorized the market based on material type, class type and end use industry.

Breakup by Material Type:

- Alumina
- Titanate
- Zirconia
- Silicon Carbide
- Others

Breakup by Class Type:

- Monolithic Ceramics
- Ceramic Coatings
- Ceramic Matrix Composites
- Others

Breakup by End Use Industry:

- Electrical and Electronics

Medical
Transportation
Defense and Security
Chemical
Others

Breakup by Region:

North America
United States
Canada
Asia-Pacific
China
Japan
India
South Korea
Australia
Indonesia
Others
Europe
Germany
France
United Kingdom
Italy
Spain
Russia
Others
Latin America
Brazil
Mexico
Others
Middle East and Africa

Competitive Landscape:

The competitive landscape of the industry has also been examined along with the profiles of the key players being 3M Company, AGC Inc., Blasch Precision Ceramics Inc., CeramTec GmbH, Compagnie de Saint-Gobain S.A., CoorsTek Inc., Corning Incorporated, Elan Technology, Ferrotec (USA) Corporation (Ferrotec Holdings Corporation), Kyocera Corporation, Materion Corporation, McDanel Advanced Ceramic

Technologies LLC, Morgan Advanced Materials plc and Paul Rauschert GmbH & Co. KG.

Key Questions Answered in This Report

1. What was the size of the global advanced ceramics market in 2023?
2. What is the expected growth rate of the global advanced ceramics market during 2024-2032?
3. What are the key factors driving the global advanced ceramics market?
4. What has been the impact of COVID-19 on the global advanced ceramics market?
5. What is the breakup of the global advanced ceramics market based on the material type?
6. What is the breakup of the global advanced ceramics market based on the class type?
7. What is the breakup of the global advanced ceramics market based on the end use industry?
8. What are the key regions in the global advanced ceramics market?
9. Who are the key players/companies in the global advanced ceramics market?

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