

Ceramics Markets: A BCC Research Outlook

Market Research Report | 2025-07-31 | 367 pages | BCC Research

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Report description:

Description

Report Scope

This report analyzes the global market for ceramics by segmenting it based on product type, end use and region. These market segments are analyzed at the global and regional levels. The base year for this analysis is 2024, and market estimates and forecasts are given from 2025 through 2030. The market estimates are provided in terms of revenue (\$ million).

The product type is further sub-segmented into technical ceramics, bioceramics, electroceramics, polymer-derived ceramics (PCDs), three-dimensional (3D)-printed ceramics and transparent ceramics. Each sub-segment is based on material, end use and region.

- Technical Ceramics

Based on material, the technical ceramics market is segmented into:

- Alumina.
- Zirconia.
- Silicon Carbide.
- Silicon Nitride.
- Others.

Based on end use, the technical ceramics market is segmented into:

- Electronics and semiconductors.
- Energy and power.
- Automotive.
- Medical
- Aerospace and defense.
- Industrial.
- Others.

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Based on region, the technical ceramics market is segmented into:

- North America.
- Europe.
- Asia-Pacific.
- South America.
- Middle East and Africa.
- Bioceramics

Based on material, the bioceramics market is segmented into:

- Alumina.
- Zirconia.
- Calcium sulfate.
- Calcium phosphate/hydroxyapatite.
- Glass.
- Carbon (graphite).
- Others.

Based on type, the bioceramics market is segmented into:

- Bioinert.
- Bioactive.
- Bioresorbable.

Based on application, the bioceramics market is segmented into:

- Bone implants.
- Dental implants.
- Surgical instruments.
- Diagnostic instruments.

Based on region, the bioceramics market is segmented into:

- North America.
- Europe.
- Asia-Pacific.
- South America.
- Middle East and Africa.
- Electroceramics

Based on material, the electroceramics market is segmented into:

- Alumina.
- Titanate.
- Zirconia.
- Others.

Based on application, the electroceramics market is segmented into:

- Capacitors.
- Actuators and sensors.
- Optoelectronic devices.
- Power distribution.
- Data storage.
- Others.

Based on end use, the electroceramics market is segmented into:

- Electronics and semiconductors.
- Energy and power.
- Transportation.

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- Aerospace and defense.
- Others.

Based on region, the electroceramics market is segmented into:

- North America.
- Europe.
- Asia-Pacific.
- South America.
- Middle East and Africa.?
- Polymer-Derived Ceramics

Based on material, the PDC market is segmented into:

- Silicon Carbide.
- Silicon Nitride.
- Others.

Based on end use, the PDC market is segmented into:

- Aerospace and defense.
- Energy and power.
- Electronics and semiconductors.
- Medical.
- Industrial.
- Others.

Based on region, the PDC market is segmented into:

- North America.
- Europe.
- Asia-Pacific.
- South America.
- Middle East and Africa.
- Three-Dimensional Printed Ceramics

Based on material, the 3D printed ceramics market is segmented into:

- Alumina.
- Calcium phosphate/hydroxyapatite.
- Silicon.
- Zirconia.
- Others.

Based on end use, the 3D printed ceramics market is segmented into:

- Aerospace and defense.
- Medical.
- Electronics and semiconductors.
- Energy and power.
- Industrial and chemical.
- Others.

Based on region, the 3D printed ceramics market is segmented into:

- North America.
- Europe.
- Asia-Pacific.
- South America.
- Middle East and Africa.
- Transparent Ceramics

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Based on material, the transparent ceramics market is segmented into:

- Alumina.
- Yttrium.
- Spinel.
- Others.

Based on type, the transparent ceramics market is segmented into:

- Monocrystalline.
- Polycrystalline.
- Others.

Based on end use, the transparent ceramics market is segmented into:

- Optics and optoelectronics.
- Aerospace, defense and security.
- Sensors and instrumentation.
- Others.

Based on region, the transparent ceramics market is segmented into:

- North America.
- Europe.
- Asia-Pacific.
- South America.
- Middle East and Africa.

Report Includes

- 197 data tables and 57 additional tables
- Analyses of the trends in the global ceramics market, with revenue data from 2024, estimates for 2025, forecasts for 2029, and projected CAGRs through 2030
- Estimates of the market's current size and revenue prospects, along with a market share analysis by product type, type, application, material type, end-use industry and region
- Facts and figures pertaining to the market dynamics, technological advances, regulations and the impact of macroeconomic factors
- Insights derived from the Porter's Five Forces model, as well as global supply chain and PESTLE analyses
- An analysis of emerging trends and other developments in the industry
- Overview of sustainability trends and ESG developments, with emphasis on consumer attitudes, and the ESG scores and practices of leading companies
- Analysis of the industry structure, including companies' market shares and rankings, strategic alliances, M&A activity and a venture funding outlook
- Company profiles, including 3M, CeramTec GmbH, CUMI, KYOCERA Corp., Materion Corp., Morgan Advanced Materials

Executive Summary

Summary:

The global market for ceramics is expected to grow from \$41.3 billion in 2025 and is projected to reach \$62.5 billion by the end of 2030, at a compound annual growth rate (CAGR) of 8.6% during the forecast period of 2025 to 2030.

The global ceramics market is experiencing significant growth, driven by rising demand across industries, including healthcare, electronics, aerospace, automotive and energy. Ceramics, known for their exceptional mechanical, thermal and chemical properties, are being increasingly utilized in advanced applications, leading to the expansion of specialized segments, such as

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bioceramics, electroceramics, technical ceramics, polymer-derived ceramics (PDCs), 3D-printed ceramics and transparent ceramics.

Technological Advances and Applications

Technological advances across bioceramics, electroceramics, technical ceramics, PDCs, 3D-printed ceramics and transparent ceramics reflect a convergence of innovations in material science, nanotechnology and manufacturing. Processing techniques, such as additive manufacturing and precursor engineering, have enabled the development of ceramics with superior mechanical strength, thermal stability and functional properties. Three-dimensional printing allows for complex component structure and customization, benefiting both bioceramics for implants and technical ceramics for aerospace parts.

Breakthroughs in nanostructuring and surface modification are also improving the performance of bioceramics in medical applications and electroceramics in sensors and actuators. PDCs offer new pathways for fabricating lightweight, high-temperature materials, often integrating with 3D-printing technologies for miniaturized electronic components. Transparent ceramics achieve high optical clarity and durability for defense and optical systems, thus benefiting from these same processing advances.

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APPLIED CERAMICS INC.
CAM BIOCERAMICS
CERAMCO INC.
CERAMTEC GMBH
CERION LLC.
COORSTEK INC.
CUMI
DENKA CO. LTD.
DSM-FIRMENICH
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ELECTRO CERAMIC INDUSTRIES
FERROTEC (USA) CORP.
GENERAL ATOMICS
GENERAL ELECTRIC CO. (GE AEROSPACE)
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