

## **Advanced Ceramics Market - Growth, Trends, Covid-19 Impact, and Forecasts (2023 - 2028)**

Market Report | 2023-01-23 | 200 pages | Mordor Intelligence

### **AVAILABLE LICENSES:**

- Single User License \$4750.00
- Team License (1-7 Users) \$5250.00
- Site License \$6500.00
- Corporate License \$8750.00

### **Report description:**

The advanced ceramics market is expected to register a CAGR of over 6% during the forecast period (2022-2027).

#### Key Highlights

The impact of the Covid-19 pandemic on the market was largely negative, but the market has now reached pre-pandemic levels and is expected to grow steadily during the forecast period.

Over the medium term, the major factors driving the market are the rise in use as an alternative to metals and plastics and the growing demand in the medical industry.

On the flip side, high capital investment for the equipment and chemical processes and uncertainty in regulative policies concerning climate change, energy & environment undermine the market.

However, increasing applications of silicon carbide (SiC), gallium nitride (GaN), and growth in usage in nanotechnology would likely create lucrative growth opportunities for the global market soon.

The electronics and electrical industry dominated the market, and it is expected to grow during the forecast period, owing to a wide range of electrical properties of advanced ceramics, including insulating, semiconducting, superconducting, piezoelectric, and magnetic properties.

Asia-Pacific dominated the market globally, with the largest consumption from countries such as China and Japan.

#### Advanced Ceramics Market Trends

The Electronics and Electrical Industry is Expected to Dominate the Market

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: [support@scotts-international.com](mailto:support@scotts-international.com)

[www.scotts-international.com](http://www.scotts-international.com)

Silicon carbide is estimated to have one of the largest applications in the electrical and electronics industry in the coming years. It has various applications in electric vehicles, high-power and high-voltage power devices, semiconductors, solar inverters, and LED lights.

Aluminum nitride is used in heat removal applications because of its high thermal conductivity and excellent electrical insulation properties, making it useful in semiconductors and consumer and household products. Similarly, silicon nitride and boron nitride are used in various electrical and electronic applications.

Asia-Pacific is one of the leading manufacturers of electronics in the world. It accounts for more than 70% of global electronics production, with countries like South Korea, Vietnam, India, and China leading.

In Europe, the German electronics industry is the largest in the region. The electrical and electronics industry accounts for 11% of the total industrial production in Germany. According to the German Electrical and Electronic Manufacturers' Association (ZVEI), the global electronics market is estimated to have risen to EUR 4.6 trillion (~USD 4.82 trillion) in 2021.

### Japan is Expected to Dominate the Asia-Pacific Market

The Japanese electrical and electronics industry is one of the world's leading industries. Japan is a world leader in the production of computers, gaming stations, cell phones, and various other key computer components.

Consumer electronics account for one-third of the Japanese economic output. The country specializes in manufacturing electronic components and devices, such as passive components, connecting components, electronic boards, and liquid crystal devices.

With the advance of digitalization boosting demand and expanding exports, global production by Japanese electronics and IT companies is expected to grow 8% year on year in 2021 to JPY 37,300 (~ USD 272.02) billion.

The Japanese aerospace industry manufactures aircraft components for commercial and defense aircraft. Commercial aircraft production has been increasing over the past couple of years due to the increasing cargo demands.

The country also plays a central role in the development of aircraft such as Boeing 767, 777, 777X, and 787 and engines such as the V2500, Trent1000, GEnx, GE9X, and PW1100G-JM.

According to the Ministry of Health, Labour, and Welfare of Japan, the country produces over 25% of the total medical devices for surgical procedures such as sterile tubes and catheters for blood vessels, surgical procedures, and sterile blood transfusion sets. The rapidly aging Japanese population increases the number of patients with chronic and lifestyle-related diseases, and universal health insurance coverage and regulatory measures are driving the Japanese medical devices market.

### Advanced Ceramics Market Competitor Analysis

The advanced ceramics market is partially fragmented in nature, with the top five players accounting for a major share of the market studied. The major market players (in no particular order) include Kyocera Corporation, Corning Incorporated, Murata Manufacturing Co., CoorsTek, and Morgan Advanced Materials, among others.

#### Additional Benefits:

The market estimate (ME) sheet in Excel format

3 months of analyst support

#### **Table of Contents:**

1 INTRODUCTION

1.1 Study Assumptions

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

## 1.2 Scope of the Study

## 2 RESEARCH METHODOLOGY

## 3 EXECUTIVE SUMMARY

## 4 MARKET DYNAMICS

### 4.1 Drivers

#### 4.1.1 Rise in Use as Alternative to Metals and Plastics

#### 4.1.2 Growing Demand in the Medical Industry

#### 4.1.3 Eco-friendliness and Reliability of Use

### 4.2 Restraints

#### 4.2.1 Unfavorable Conditions Arising due to COVID-19 Impact

#### 4.2.2 Other Restraints

### 4.3 Industry Value Chain Analysis

### 4.4 Porter's Five Forces Analysis

#### 4.4.1 Bargaining Power of Suppliers

#### 4.4.2 Bargaining Power of Consumers

#### 4.4.3 Threat of New Entrants

#### 4.4.4 Threat of Substitute Products and Services

#### 4.4.5 Degree of Competition

### 4.5 Patent Analysis

### 4.6 Price Analysis

## 5 MARKET SEGMENTATION (Market Size in Value)

### 5.1 Material Type

#### 5.1.1 Alumina

#### 5.1.2 Titanate

#### 5.1.3 Zirconia

#### 5.1.4 Silicon Carbide

#### 5.1.5 Aluminum Nitride

#### 5.1.6 Silicon Nitride

#### 5.1.7 Magnesium Silicate

#### 5.1.8 Pyrolytic Boron Nitride

#### 5.1.9 Other Material Types

### 5.2 Class Type

#### 5.2.1 Monolithic Ceramics

#### 5.2.2 Ceramic Matrix Composites

#### 5.2.3 Ceramic Coatings

### 5.3 End-user Industry

#### 5.3.1 Electrical and Electronics

#### 5.3.2 Transportation

#### 5.3.3 Medical

#### 5.3.4 Industrial

#### 5.3.5 Defense and Security

#### 5.3.6 Chemical

#### 5.3.7 Other End-user Industries

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 5.4 Geography
  - 5.4.1 Asia-Pacific
    - 5.4.1.1 China
    - 5.4.1.2 India
    - 5.4.1.3 Japan
    - 5.4.1.4 South Korea
    - 5.4.1.5 Rest of Asia-Pacific
  - 5.4.2 North America
    - 5.4.2.1 United States
    - 5.4.2.2 Canada
    - 5.4.2.3 Mexico
  - 5.4.3 Europe
    - 5.4.3.1 Germany
    - 5.4.3.2 United Kingdom
    - 5.4.3.3 Italy
    - 5.4.3.4 France
    - 5.4.3.5 Rest of Europe
  - 5.4.4 South America
    - 5.4.4.1 Brazil
    - 5.4.4.2 Argentina
    - 5.4.4.3 Rest of South America
  - 5.4.5 Middle-East
    - 5.4.5.1 Saudi Arabia
    - 5.4.5.2 South Africa
    - 5.4.5.3 Rest of Middle-East

## 6 COMPETITIVE LANDSCAPE

- 6.1 Mergers and Acquisitions, Joint Ventures, Collaborations, and Agreements
- 6.2 Market Ranking Analysis
- 6.3 Strategies Adopted by Leading Players
- 6.4 Company Profiles
  - 6.4.1 3M (Ceradyne Inc.)
  - 6.4.2 AGC Inc.
  - 6.4.3 Applied Ceramics Inc.
  - 6.4.4 Blasch Precision Ceramics Inc.
  - 6.4.5 Ceramtec
  - 6.4.6 COI Ceramics Inc.
  - 6.4.7 Coorstek Inc.
  - 6.4.8 Corning Incorporated
  - 6.4.9 International Ceramics Inc.
  - 6.4.10 Kyocera Corporation
  - 6.4.11 MARUWA Co. Ltd
  - 6.4.12 Materion Corporation
  - 6.4.13 McDanel Advanced Ceramic Technologies
  - 6.4.14 Morgan Advanced Materials
  - 6.4.15 Murata Manufacturing Co. Ltd
  - 6.4.16 Rauschert GmbH

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 6.4.17 Saint-Gobain
- 6.4.18 Small Precision Tools Inc.
- 6.4.19 Vesuvius
- 6.4.20 Wonik QnC Corporation

## 7 MARKET OPPORTUNITIES AND FUTURE TRENDS

- 7.1 Increasing Applications of Silicon Carbide (SiC) and Gallium Nitride (GaN)
- 7.2 Growth in Usage in Nanotechnology

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: [support@scotts-international.com](mailto:support@scotts-international.com)

[www.scotts-international.com](http://www.scotts-international.com)

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

Market Report | 2023-01-23 | 200 pages | Mordor Intelligence

To place an Order with Scotts International:

- Print this form
- Complete the relevant blank fields and sign
- Send as a scanned email to support@scotts-international.com

**ORDER FORM:**

Select license	License	Price
	Single User License	\$4750.00
	Team License (1-7 Users)	\$5250.00
	Site License	\$6500.00
	Corporate License	\$8750.00
		VAT
		Total

\*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

\*\* VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*	<input type="text"/>	Phone*	<input type="text"/>
First Name*	<input type="text"/>	Last Name*	<input type="text"/>
Job title*	<input type="text"/>		
Company Name*	<input type="text"/>	EU Vat / Tax ID / NIP number*	<input type="text"/>
Address*	<input type="text"/>	City*	<input type="text"/>
Zip Code*	<input type="text"/>	Country*	<input type="text"/>
		Date	<input type="text" value="2026-03-03"/>
		Signature	

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

