

# Technical Ceramic Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2022-2027

<https://marketpublishers.com/r/T42797C6015DEN.html>

Date: May 2022

Pages: 143

Price: US\$ 2,499.00 (Single User License)

ID: T42797C6015DEN

## Abstracts

The global technical ceramic market reached a value of US\$ 74.92 Billion in 2021. Looking forward, IMARC Group expects the market to reach a value of US\$ 109.44 Billion by 2027, exhibiting a CAGR of 6.30% during 2022-2027. Keeping in mind the uncertainties of COVID-19, we are continuously tracking and evaluating the direct as well as the indirect influence of the pandemic on different end use industries. These insights are included in the report as a major market contributor.

A technical ceramic, also known as advanced or engineered ceramic, is an inorganic material manufactured using synthetic raw materials under a controlled process to achieve purity and improve its physical characteristics. It has high strength and electrical and corrosion resistance properties. As it is customizable and can maintain its precise, high-tolerance finish longer than any other material, technical ceramic is employed in the electronics and automotive industries across the globe.

### Technical Ceramic Market Trends:

Technical ceramics are increasingly replacing metals, polymers, and refractory materials on account of their hardness, chemical stability, and high-temperature capability. This represents one of the key factors impelling the growth of the market. Moreover, they are utilized in the manufacturing of pump plungers, liners, shafts, mechanical seals, valve seats, spray nozzles, milling media, knives, lift pins, blades, bushings, and semiconductor rings. Besides this, advanced technical ceramics, such as zirconium dioxide (ZrO<sub>2</sub>), aluminum oxide (Al<sub>2</sub>O<sub>3</sub>), silicon carbide (SiC), and silicon nitride (Si<sub>3</sub>N<sub>4</sub>), are used in industrial applications, including metal forming and machining of parts. This, coupled with the rising utilization of technical ceramics as construction materials in mechanical components, is strengthening the growth of the

market. Apart from this, these ceramics find extensive applications in the production of hip and knee implants as they offer chemical inertness and high wear resistance. Additionally, there is an increase in the use of technical ceramics in dentistry for fillings, implants, the replacement of crowns, and bonding materials in root canal procedures. This, along with the burgeoning healthcare industry, rising geriatric population and the increasing prevalence of chronic diseases, is anticipated to stimulate the growth of the market in the coming years.

#### Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global technical ceramic market, along with forecasts at the global, regional and country level from 2022-2027. Our report has categorized the market based on material type, product and end use industry.

#### Breakup by Material Type:

- Oxide Ceramic
- Non-Oxide Ceramic

#### Breakup by Product:

- Monolithic Ceramics
- Ceramic Coatings
- Ceramic Matrix Composites (CMC)

#### Breakup by End Use Industry:

- Electronics and Semiconductor
- Automotive
- Energy and Power
- Medical
- Military and Defense
- 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, Bakony Technical Ceramics, CeramTec GmbH, Compagnie de Saint-Gobain S.A., CoorsTek Inc., Elan Technology, General Electric Company, KYOCERA Corporation, Mantec Technical Ceramics Ltd., Morgan Advanced Materials plc, NGK Spark Plug Co. Ltd. and Rauschert GmbH.

Key Questions Answered in This Report:

How has the global technical ceramic market performed so far and how will it perform in the coming years?

What has been the impact of COVID-19 on the global technical ceramic market?

What are the key regional markets?

What is the breakup of the market based on the material type?

What is the breakup of the market based on the product?

What is the breakup of the market based on the end use industry?

What are the various stages in the value chain of the industry?

What are the key driving factors and challenges in the industry?

What is the structure of the global technical ceramic market and who are the key

players?

What is the degree of competition in the industry?

## Contents

### **1 PREFACE**

### **2 SCOPE AND METHODOLOGY**

- 2.1 Objectives of the Study
- 2.2 Stakeholders
- 2.3 Data Sources
  - 2.3.1 Primary Sources
  - 2.3.2 Secondary Sources
- 2.4 Market Estimation
  - 2.4.1 Bottom-Up Approach
  - 2.4.2 Top-Down Approach
- 2.5 Forecasting Methodology

### **3 EXECUTIVE SUMMARY**

### **4 INTRODUCTION**

- 4.1 Overview
- 4.2 Key Industry Trends

### **5 GLOBAL TECHNICAL CERAMIC MARKET**

- 5.1 Market Overview
- 5.2 Market Performance
- 5.3 Impact of COVID-19
- 5.4 Market Forecast

### **6 MARKET BREAKUP BY MATERIAL TYPE**

- 6.1 Oxide Ceramic
  - 6.1.1 Market Trends
  - 6.1.2 Market Forecast
- 6.2 Non-Oxide Ceramic
  - 6.2.1 Market Trends
  - 6.2.2 Market Forecast

## **7 MARKET BREAKUP BY PRODUCT**

- 7.1 Monolithic Ceramics
  - 7.1.1 Market Trends
  - 7.1.2 Market Forecast
- 7.2 Ceramic Coatings
  - 7.2.1 Market Trends
  - 7.2.2 Market Forecast
- 7.3 Ceramic Matrix Composites (CMC)
  - 7.3.1 Market Trends
  - 7.3.2 Market Forecast

## **8 MARKET BREAKUP BY END USE INDUSTRY**

- 8.1 Electronics and Semiconductor
  - 8.1.1 Market Trends
  - 8.1.2 Market Forecast
- 8.2 Automotive
  - 8.2.1 Market Trends
  - 8.2.2 Market Forecast
- 8.3 Energy and Power
  - 8.3.1 Market Trends
  - 8.3.2 Market Forecast
- 8.4 Medical
  - 8.4.1 Market Trends
  - 8.4.2 Market Forecast
- 8.5 Military and Defense
  - 8.5.1 Market Trends
  - 8.5.2 Market Forecast
- 8.6 Others
  - 8.6.1 Market Trends
  - 8.6.2 Market Forecast

## **9 MARKET BREAKUP BY REGION**

- 9.1 North America
  - 9.1.1 United States
    - 9.1.1.1 Market Trends
    - 9.1.1.2 Market Forecast

- 9.1.2 Canada
  - 9.1.2.1 Market Trends
  - 9.1.2.2 Market Forecast
- 9.2 Asia-Pacific
  - 9.2.1 China
    - 9.2.1.1 Market Trends
    - 9.2.1.2 Market Forecast
  - 9.2.2 Japan
    - 9.2.2.1 Market Trends
    - 9.2.2.2 Market Forecast
  - 9.2.3 India
    - 9.2.3.1 Market Trends
    - 9.2.3.2 Market Forecast
  - 9.2.4 South Korea
    - 9.2.4.1 Market Trends
    - 9.2.4.2 Market Forecast
  - 9.2.5 Australia
    - 9.2.5.1 Market Trends
    - 9.2.5.2 Market Forecast
  - 9.2.6 Indonesia
    - 9.2.6.1 Market Trends
    - 9.2.6.2 Market Forecast
  - 9.2.7 Others
    - 9.2.7.1 Market Trends
    - 9.2.7.2 Market Forecast
- 9.3 Europe
  - 9.3.1 Germany
    - 9.3.1.1 Market Trends
    - 9.3.1.2 Market Forecast
  - 9.3.2 France
    - 9.3.2.1 Market Trends
    - 9.3.2.2 Market Forecast
  - 9.3.3 United Kingdom
    - 9.3.3.1 Market Trends
    - 9.3.3.2 Market Forecast
  - 9.3.4 Italy
    - 9.3.4.1 Market Trends
    - 9.3.4.2 Market Forecast
  - 9.3.5 Spain

- 9.3.5.1 Market Trends
- 9.3.5.2 Market Forecast
- 9.3.6 Russia
  - 9.3.6.1 Market Trends
  - 9.3.6.2 Market Forecast
- 9.3.7 Others
  - 9.3.7.1 Market Trends
  - 9.3.7.2 Market Forecast
- 9.4 Latin America
  - 9.4.1 Brazil
    - 9.4.1.1 Market Trends
    - 9.4.1.2 Market Forecast
  - 9.4.2 Mexico
    - 9.4.2.1 Market Trends
    - 9.4.2.2 Market Forecast
  - 9.4.3 Others
    - 9.4.3.1 Market Trends
    - 9.4.3.2 Market Forecast
- 9.5 Middle East and Africa
  - 9.5.1 Market Trends
  - 9.5.2 Market Breakup by Country
  - 9.5.3 Market Forecast

## **10 SWOT ANALYSIS**

- 10.1 Overview
- 10.2 Strengths
- 10.3 Weaknesses
- 10.4 Opportunities
- 10.5 Threats

## **11 VALUE CHAIN ANALYSIS**

## **12 PORTERS FIVE FORCES ANALYSIS**

- 12.1 Overview
- 12.2 Bargaining Power of Buyers
- 12.3 Bargaining Power of Suppliers
- 12.4 Degree of Competition



12.5 Threat of New Entrants

12.6 Threat of Substitutes

## **13 PRICE ANALYSIS**

## **14 COMPETITIVE LANDSCAPE**

14.1 Market Structure

14.2 Key Players

14.3 Profiles of Key Players

14.3.1 3M Company

14.3.1.1 Company Overview

14.3.1.2 Product Portfolio

14.3.1.3 Financials

14.3.1.4 SWOT Analysis

14.3.2 Bakony Technical Ceramics

14.3.2.1 Company Overview

14.3.2.2 Product Portfolio

14.3.3 CeramTec GmbH

14.3.3.1 Company Overview

14.3.3.2 Product Portfolio

14.3.4 Compagnie de Saint-Gobain S.A.

14.3.4.1 Company Overview

14.3.4.2 Product Portfolio

14.3.4.3 Financials

14.3.4.4 SWOT Analysis

14.3.5 CoorsTek Inc.

14.3.5.1 Company Overview

14.3.5.2 Product Portfolio

14.3.6 Elan Technology

14.3.6.1 Company Overview

14.3.6.2 Product Portfolio

14.3.7 General Electric Company

14.3.7.1 Company Overview

14.3.7.2 Product Portfolio

14.3.7.3 Financials

14.3.7.4 SWOT Analysis

14.3.8 KYOCERA Corporation

14.3.8.1 Company Overview

- 14.3.8.2 Product Portfolio
- 14.3.8.3 Financials
- 14.3.8.4 SWOT Analysis
- 14.3.9 Mantec Technical Ceramics Ltd.
  - 14.3.9.1 Company Overview
  - 14.3.9.2 Product Portfolio
- 14.3.10 Morgan Advanced Materials plc
  - 14.3.10.1 Company Overview
  - 14.3.10.2 Product Portfolio
  - 14.3.10.3 Financials
- 14.3.11 NGK Spark Plug Co. Ltd.
  - 14.3.11.1 Company Overview
  - 14.3.11.2 Product Portfolio
  - 14.3.11.3 Financials
- 14.3.12 Rauschert GmbH
  - 14.3.12.1 Company Overview
  - 14.3.12.2 Product Portfolio

## List Of Tables

### LIST OF TABLES

Table 1: Global: Technical Ceramic Market: Key Industry Highlights, 2021 and 2027

Table 2: Global: Technical Ceramic Market Forecast: Breakup by Material Type (in Million US\$), 2022-2027

Table 3: Global: Technical Ceramic Market Forecast: Breakup by Product (in Million US\$), 2022-2027

Table 4: Global: Technical Ceramic Market Forecast: Breakup by End Use Industry (in Million US\$), 2022-2027

Table 5: Global: Technical Ceramic Market Forecast: Breakup by Region (in Million US\$), 2022-2027

Table 6: Global: Technical Ceramic Market: Competitive Structure

Table 7: Global: Technical Ceramic Market: Key Players

## List Of Figures

### LIST OF FIGURES

Figure 1: Global: Technical Ceramic Market: Major Drivers and Challenges

Figure 2: Global: Technical Ceramic Market: Sales Value (in Billion US\$), 2016-2021

Figure 3: Global: Technical Ceramic Market Forecast: Sales Value (in Billion US\$), 2022-2027

Figure 4: Global: Technical Ceramic Market: Breakup by Material Type (in %), 2021

Figure 5: Global: Technical Ceramic Market: Breakup by Product (in %), 2021

Figure 6: Global: Technical Ceramic Market: Breakup by End Use Industry (in %), 2021

Figure 7: Global: Technical Ceramic Market: Breakup by Region (in %), 2021

Figure 8: Global: Technical Ceramic (Oxide Ceramic) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 9: Global: Technical Ceramic (Oxide Ceramic) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 10: Global: Technical Ceramic (Non-Oxide Ceramic) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 11: Global: Technical Ceramic (Non-Oxide Ceramic) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 12: Global: Technical Ceramic (Monolithic Ceramics) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 13: Global: Technical Ceramic (Monolithic Ceramics) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 14: Global: Technical Ceramic (Ceramic Coatings) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 15: Global: Technical Ceramic (Ceramic Coatings) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 16: Global: Technical Ceramic (Ceramic Matrix Composites (CMC)) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 17: Global: Technical Ceramic (Ceramic Matrix Composites (CMC)) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 18: Global: Technical Ceramic (Electronics and Semiconductor) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 19: Global: Technical Ceramic (Electronics and Semiconductor) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 20: Global: Technical Ceramic (Automotive) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 21: Global: Technical Ceramic (Automotive) Market Forecast: Sales Value (in

Million US\$), 2022-2027

Figure 22: Global: Technical Ceramic (Energy and Power) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 23: Global: Technical Ceramic (Energy and Power) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 24: Global: Technical Ceramic (Medical) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 25: Global: Technical Ceramic (Medical) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 26: Global: Technical Ceramic (Military and Defense) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 27: Global: Technical Ceramic (Military and Defense) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 28: Global: Technical Ceramic (Other End Use Industries) Market: Sales Value (in Million US\$), 2016 & 2021

Figure 29: Global: Technical Ceramic (Other End Use Industries) Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 30: North America: Technical Ceramic Market: Sales Value (in Million US\$), 2016 & 2021

Figure 31: North America: Technical Ceramic Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 32: United States: Technical Ceramic Market: Sales Value (in Million US\$), 2016 & 2021

Figure 33: United States: Technical Ceramic Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 34: Canada: Technical Ceramic Market: Sales Value (in Million US\$), 2016 & 2021

Figure 35: Canada: Technical Ceramic Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 36: Asia-Pacific: Technical Ceramic Market: Sales Value (in Million US\$), 2016 & 2021

Figure 37: Asia-Pacific: Technical Ceramic Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 38: China: Technical Ceramic Market: Sales Value (in Million US\$), 2016 & 2021

Figure 39: China: Technical Ceramic Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 40: Japan: Technical Ceramic Market: Sales Value (in Million US\$), 2016 & 2021

Figure 41: Japan: Technical Ceramic Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 42: India: Technical Ceramic Market: Sales Value (in Million US\$), 2016 & 2021

Figure 43: India: Technical Ceramic Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 44: South Korea: Technical Ceramic Market: Sales Value (in Million US\$), 2016 & 2021

Figure 45: South Korea: Technical Ceramic Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 46: Australia: Technical Ceramic Market: Sales Value (in Million US\$), 2016 & 2021

Figure 47: Australia: Technical Ceramic Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 48: Indonesia: Technical Ceramic Market: Sales Value (in Million US\$), 2016 & 2021

Figure 49: Indonesia: Technical Ceramic Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 50: Others: Technical Ceramic Market: Sales Value (in Million US\$), 2016 & 2021

Figure 51: Others: Technical Ceramic Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 52: Europe: Technical Ceramic Market: Sales Value (in Million US\$), 2016 & 2021

Figure 53: Europe: Technical Ceramic Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 54: Germany: Technical Ceramic Market: Sales Value (in Million US\$), 2016 & 2021

Figure 55: Germany: Technical Ceramic Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 56: France: Technical Ceramic Market: Sales Value (in Million US\$), 2016 & 2021

Figure 57: France: Technical Ceramic Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 58: United Kingdom: Technical Ceramic Market: Sales Value (in Million US\$), 2016 & 2021

Figure 59: United Kingdom: Technical Ceramic Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 60: Italy: Technical Ceramic Market: Sales Value (in Million US\$), 2016 & 2021

Figure 61: Italy: Technical Ceramic Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 62: Spain: Technical Ceramic Market: Sales Value (in Million US\$), 2016 & 2021

Figure 63: Spain: Technical Ceramic Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 64: Russia: Technical Ceramic Market: Sales Value (in Million US\$), 2016 & 2021

Figure 65: Russia: Technical Ceramic Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 66: Others: Technical Ceramic Market: Sales Value (in Million US\$), 2016 & 2021

Figure 67: Others: Technical Ceramic Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 68: Latin America: Technical Ceramic Market: Sales Value (in Million US\$), 2016 & 2021

Figure 69: Latin America: Technical Ceramic Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 70: Brazil: Technical Ceramic Market: Sales Value (in Million US\$), 2016 & 2021

Figure 71: Brazil: Technical Ceramic Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 72: Mexico: Technical Ceramic Market: Sales Value (in Million US\$), 2016 & 2021

Figure 73: Mexico: Technical Ceramic Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 74: Others: Technical Ceramic Market: Sales Value (in Million US\$), 2016 & 2021

Figure 75: Others: Technical Ceramic Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 76: Middle East and Africa: Technical Ceramic Market: Sales Value (in Million US\$), 2016 & 2021

Figure 77: Middle East and Africa: Technical Ceramic Market: Breakup by Country (in %), 2021

Figure 78: Middle East and Africa: Technical Ceramic Market Forecast: Sales Value (in Million US\$), 2022-2027

Figure 79: Global: Technical Ceramic Industry: SWOT Analysis

Figure 80: Global: Technical Ceramic Industry: Value Chain Analysis

Figure 81: Global: Technical Ceramic Industry: Porter's Five Forces Analysis

## I would like to order

Product name: Technical Ceramic Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2022-2027

Product link: <https://marketpublishers.com/r/T42797C6015DEN.html>

Price: US\$ 2,499.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/T42797C6015DEN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:  
Last name:  
Email:  
Company:  
Address:  
City:  
Zip code:  
Country:  
Tel:  
Fax:  
Your message:

**\*\*All fields are required**

Customer signature \_\_\_\_\_

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970



