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Abstracts

The Advanced Ceramics Companies Quadrant is a comprehensive industry analysis that provides valuable insights into the global market for Advanced Ceramics. This quadrant offers a detailed evaluation of key market players, technological advancements, product innovations, and emerging trends shaping the industry. MarketsandMarkets 360 Quadrants evaluated over 40 companies of which the Top 14 Advanced Ceramics Companies were categorized and recognized as the quadrant leaders.

Advanced ceramics, also known as technical or engineered ceramics, are high-performance materials designed to withstand extreme temperatures, mechanical stress, and chemical corrosion. Unlike traditional ceramics used in pottery and construction, advanced ceramics are formulated from highly refined raw materials such as alumina, zirconia, silicon carbide, and silicon nitride. These materials undergo advanced manufacturing processes to achieve exceptional strength, hardness, electrical insulation, and thermal stability. The growth of the advanced ceramics market is driven by expanding end-use industries, the superior performance properties of these materials, increasing demand from the medical and electronics sectors, and government investments in research, particularly in energy, aerospace, and defense.

However, challenges such as the brittleness of advanced ceramics, complex manufacturing processes, and their higher cost compared to metals and alloys limit market expansion. Nonetheless, the rising adoption of ceramics in nanotechnology and the aerospace & defense industries is expected to fuel market demand in the coming years.

The 360 Quadrant maps the Advanced Ceramics companies based on criteria such as

revenue, geographic presence, growth strategies, investments, and sales strategies for the market presence of the Advanced Ceramics quadrant. The top criteria for product footprint evaluation included By Material (Alumina, Zirconia, Titanate, Silicon carbide, Piezo ceramic and Other materials), Application and End-User.

Key Players:

The key market players include KYOCERA Corporation (Japan), CeramTec (Germany), CoorsTek (US), Morgan Advanced Materials (UK), 3M (US), AGC Ceramics Co., Ltd. (Japan), MARUWA Co., Ltd. (Japan), Saint-Gobain Performance Ceramics & Refractories (France), Paul Rauschert GmbH & Co. KG. (Germany), Elan Technology (US), Oerlikon (Switzerland), and Materion Corporation (US). The increasing demand for advanced ceramics in various end-use industries, such as electrical & electronics, transportation, medical, and defense & security has encouraged companies to adopt new product launches, expansions, and acquisition strategies to grow in the market.

KYOCERA Corporation

KYOCERA Corporation stands as a dominant entity in the advanced ceramics sector by emphasizing innovation and sustainable development. The company allocates a substantial portion of its revenue towards research and development to enhance its product offerings. KYOCERA's diverse product portfolio addresses the needs of multiple sectors such as electronics and automotive, contributing significantly to its market share. By expanding its manufacturing capabilities globally and investing in new facilities, KYOCERA solidifies its position as an industry leader.

CeramTec

CeramTec is recognized for its extensive product portfolio and innovation in high-performance ceramic solutions. The company leverages its technological advancements and production prowess to serve key industries, including medical and aerospace. By focusing on strategic expansions and new product launches, CeramTec strengthens its market footprint, ensuring a strong market share.

Morgan Advanced Materials

Morgan Advanced Materials capitalizes on its expertise in material science to serve industries such as aerospace, electronics, and healthcare. Its strategic investments in R&D and partnerships, like its collaboration for silicon carbide research, emphasize its

focus on innovation and sustainability. The company's comprehensive approach towards enhancing customer-specific solutions further secures its stance in the market.

Contents

1 INTRODUCTION

- 1.1 MARKET DEFINITION
- 1.2 INCLUSIONS AND EXCLUSIONS
- 1.3 STAKEHOLDERS

2 EXECUTIVE SUMMARY

3 MARKET OVERVIEW

- 3.1 INTRODUCTION
- 3.2 MARKET DYNAMICS
 - 3.2.1 DRIVERS
 - 3.2.1.1 High growth of end-use industries and high performance of advanced ceramics
 - 3.2.1.2 Rising demand from medical and electronics sectors
 - 3.2.1.3 Government investments in research, energy, and aerospace & defense industries
 - 3.2.2 RESTRAINTS
 - 3.2.2.1 Higher cost than metal and alloy counterparts
 - 3.2.2.2 Complex manufacturing processes of advanced ceramics
 - 3.2.3 OPPORTUNITIES
 - 3.2.3.1 Integration of nanotechnology in advanced ceramic materials
 - 3.2.3.2 Increasing use in aerospace and defense industries
 - 3.2.4 CHALLENGES
 - 3.2.4.1 Brittleness of advanced ceramics
- 3.3 PORTER'S FIVE FORCES ANALYSIS
 - 3.3.1 THREAT OF NEW ENTRANTS
 - 3.3.2 THREAT OF SUBSTITUTES
 - 3.3.3 BARGAINING POWER OF SUPPLIERS
 - 3.3.4 BARGAINING POWER OF BUYERS
 - 3.3.5 INTENSITY OF COMPETITIVE RIVALRY

4 INDUSTRY TRENDS

- 4.1 INTRODUCTION
- 4.2 VALUE CHAIN ANALYSIS

- 4.3 ECOSYSTEM ANALYSIS
- 4.4 TRENDS AND DISRUPTIONS IMPACTING CUSTOMER BUSINESS
- 4.5 TECHNOLOGY ANALYSIS
 - 4.5.1 KEY TECHNOLOGIES
 - 4.5.1.1 3D printing
 - 4.5.1.2 Powder synthesis and sintering techniques
 - 4.5.2 COMPLEMENTARY TECHNOLOGIES
 - 4.5.2.1 Nanotechnology
 - 4.5.2.2 Coating technologies
- 4.6 KEY CONFERENCES AND EVENTS, 2025
- 4.7 PATENT ANALYSIS
 - 4.7.1 METHODOLOGY
 - 4.7.2 DOCUMENT TYPES
 - 4.7.3 PUBLICATION TRENDS IN LAST 10 YEARS
 - 4.7.4 INSIGHTS
 - 4.7.5 LEGAL STATUS OF PATENTS
 - 4.7.6 JURISDICTION ANALYSIS
 - 4.7.7 TOP APPLICANTS
- 4.8 IMPACT OF AI/GEN AI ON ADVANCED CERAMICS MARKET

5 COMPETITIVE LANDSCAPE

- 5.1 OVERVIEW
- 5.2 KEY PLAYER STRATEGIES/RIGHT TO WIN, 2020–2024
- 5.3 REVENUE ANALYSIS, 2023
- 5.4 MARKET SHARE ANALYSIS, 2023
- 5.5 COMPANY VALUATION AND FINANCIAL METRICS
- 5.6 BRAND/PRODUCT COMPARISON
- 5.7 COMPANY EVALUATION MATRIX: KEY PLAYERS, 2023
 - 5.7.1 STARS
 - 5.7.2 EMERGING LEADERS
 - 5.7.3 PERVASIVE PLAYERS
 - 5.7.4 PARTICIPANTS
 - 5.7.5 COMPANY FOOTPRINT: KEY PLAYERS, 2023
 - 5.7.5.1 Company footprint
 - 5.7.5.2 Region footprint
 - 5.7.5.3 Type footprint
 - 5.7.5.4 Application footprint
 - 5.7.5.5 End-use industry footprint

5.8 COMPANY EVALUATION MATRIX: STARTUPS/SMES, 2023

5.8.1 PROGRESSIVE COMPANIES

5.8.2 RESPONSIVE COMPANIES

5.8.3 DYNAMIC COMPANIES

5.8.4 STARTING BLOCKS

5.8.5 COMPETITIVE BENCHMARKING: STARTUPS/SMES, 2023

5.8.5.1 Detailed list of key startups/SMEs

5.8.5.2 Competitive benchmarking of startups/SMEs

5.9 COMPETITIVE SCENARIO

5.9.1 PRODUCT LAUNCHES

5.9.2 DEALS

5.9.3 EXPANSIONS

6 COMPANY PROFILES

6.1 KEY PLAYERS

6.1.1 KYOCERA CORPORATION

6.1.1.1 Business overview

6.1.1.2 Products/Solutions/Services offered

6.1.1.3 Recent developments

6.1.1.3.1 Expansions

6.1.1.4 MnM view

6.1.1.4.1 Right to win

6.1.1.4.2 Strategic choices

6.1.1.4.3 Weaknesses and competitive threats

6.1.2 CERAMTEC

6.1.2.1 Business overview

6.1.2.2 Products/Solutions/Services offered

6.1.2.3 Recent developments

6.1.2.3.1 Product launches

6.1.2.4 MnM view

6.1.2.4.1 Right to win

6.1.2.4.2 Strategic choices

6.1.2.4.3 Weaknesses and competitive threats

6.1.3 COORSTEK

6.1.3.1 Business overview

6.1.3.2 Products/Solutions/Services offered

6.1.3.3 Recent developments

6.1.3.3.1 Expansions

- 6.1.3.4 MnM view
 - 6.1.3.4.1 Right to win
 - 6.1.3.4.2 Strategic choices
 - 6.1.3.4.3 Weaknesses and competitive threats
- 6.1.4 MORGAN ADVANCED MATERIALS
 - 6.1.4.1 Business overview
 - 6.1.4.2 Products/Solutions/Services offered
 - 6.1.4.3 Recent developments
 - 6.1.4.3.1 Deals
 - 6.1.4.4 MnM view
 - 6.1.4.4.1 Right to win
 - 6.1.4.4.2 Strategic choices
 - 6.1.4.4.3 Weaknesses and competitive threats
- 6.1.5 3M
 - 6.1.5.1 Business overview
 - 6.1.5.2 Products/Solutions/Services offered
 - 6.1.5.3 MnM view
 - 6.1.5.3.1 Right to win
 - 6.1.5.3.2 Strategic choices
 - 6.1.5.3.3 Weaknesses and competitive threats
- 6.1.6 AGC CERAMICS CO., LTD.
 - 6.1.6.1 Business overview
 - 6.1.6.2 Products/Solutions/Services offered
 - 6.1.6.3 MnM view
- 6.1.7 MARUWA CO., LTD.
 - 6.1.7.1 Business overview
 - 6.1.7.2 Products/Solutions/Services offered
 - 6.1.7.3 MnM view
- 6.1.8 SAINT-GOBAIN PERFORMANCE CERAMICS & REFRACTORIES
 - 6.1.8.1 Business overview
 - 6.1.8.2 Products/Solutions/Services offered
- 6.1.9 PAUL RAUSCHERT GMBH & CO. KG.
 - 6.1.9.1 Business overview
 - 6.1.9.2 Products/Solutions/Services offered
- 6.1.10 ELAN TECHNOLOGY
 - 6.1.10.1 Business overview
 - 6.1.10.2 Products/Solutions/Services offered
 - 6.1.10.3 MnM view
- 6.2 OTHER PLAYERS

- 6.2.1 OERLIKON
- 6.2.2 NISHIMURA ADVANCED CERAMICS CO., LTD.
- 6.2.3 MCDANEL ADVANCED MATERIAL TECHNOLOGIES LLC
- 6.2.4 ORTECH, INC.
- 6.2.5 MATERION CORPORATION
- 6.2.6 BLASCH PRECISION CERAMICS, INC.
- 6.2.7 FERROTEC
- 6.2.8 COIC
- 6.2.9 BCE SPECIAL CERAMICS GMBH
- 6.2.10 STC MATERIAL SOLUTIONS
- 6.2.11 MOMENTIVE TECHNOLOGIES
- 6.2.12 DYSON TECHNICAL CERAMICS
- 6.2.13 ADVANCED CERAMICS MANUFACTURING
- 6.2.14 BAKONY TECHNICAL CERAMICS
- 6.2.15 WONIK QNC CORPORATION

7 APPENDIX

- 7.1 RESEARCH METHODOLOGY
 - 7.1.1 RESEARCH DATA
 - 7.1.1.1 Secondary data
 - 7.1.1.2 Primary data
 - 7.1.2 ASSUMPTIONS
 - 7.1.3 LIMITATIONS & RISKS
- 7.2 COMPANY EVALUATION MATRIX: METHODOLOGY
- 7.3 AUTHOR DETAILS

List Of Tables

LIST OF TABLES

TABLE 1 ADVANCED CERAMICS MARKET: PORTER'S FIVE FORCES ANALYSIS

TABLE 2 ROLE OF COMPANIES IN ADVANCED CERAMICS ECOSYSTEM

TABLE 3 ADVANCED CERAMICS MARKET: KEY CONFERENCES AND EVENTS, 2025

TABLE 4 TOP 10 PATENT OWNERS DURING LAST TEN YEARS, 2015–2024

TABLE 5 ADVANCED CERAMICS MARKET: OVERVIEW OF STRATEGIES ADOPTED BY KEY PLAYERS, 2020–2024

TABLE 6 ADVANCED CERAMICS MARKET: DEGREE OF COMPETITION, 2023

TABLE 7 ADVANCED CERAMICS MARKET: REGION FOOTPRINT

TABLE 8 ADVANCED CERAMICS MARKET: TYPE FOOTPRINT

TABLE 9 ADVANCED CERAMICS MARKET: APPLICATION FOOTPRINT

TABLE 10 ADVANCED CERAMICS MARKET: END-USE INDUSTRY FOOTPRINT

TABLE 11 ADVANCED CERAMICS MARKET: KEY STARTUPS/SMES

TABLE 12 ADVANCED CERAMICS MARKET: COMPETITIVE BENCHMARKING OF STARTUPS/SMES

TABLE 13 ADVANCED CERAMICS MARKET: PRODUCT LAUNCHES, JANUARY 2020–SEPTEMBER 2024

TABLE 14 ADVANCED CERAMICS MARKET: DEALS, JANUARY 2020–SEPTEMBER 2024

TABLE 15 ADVANCED CERAMICS MARKET: EXPANSIONS, JANUARY 2020–SEPTEMBER 2024

TABLE 16 KYOCERA CORPORATION: COMPANY OVERVIEW

TABLE 17 KYOCERA CORPORATION: PRODUCTS/SOLUTIONS/SERVICES OFFERED

TABLE 18 KYOCERA CORPORATION: EXPANSIONS, JANUARY 2020–SEPTEMBER 2024

TABLE 19 CERAMTEC: COMPANY OVERVIEW

TABLE 20 CERAMTEC: PRODUCTS/SOLUTIONS/SERVICES OFFERED

TABLE 21 CERAMTEC: PRODUCT LAUNCHES, JANUARY 2020–SEPTEMBER 2024

TABLE 22 COORSTEK: COMPANY OVERVIEW

TABLE 23 COORSTEK: PRODUCTS/SOLUTIONS/SERVICES OFFERED

TABLE 24 COORSTEK: EXPANSIONS, JANUARY 2020–SEPTEMBER 2024

TABLE 25 MORGAN ADVANCED MATERIALS: COMPANY OVERVIEW

TABLE 26 MORGAN ADVANCED MATERIALS: PRODUCTS/SOLUTIONS/SERVICES OFFERED

TABLE 27 MORGAN ADVANCED CERAMICS: DEALS, JANUARY 2020–SEPTEMBER 2024

TABLE 28 3M: COMPANY OVERVIEW

TABLE 29 3M: PRODUCTS/SOLUTIONS/SERVICES OFFERED

TABLE 30 AGC CERAMICS CO., LTD.: COMPANY OVERVIEW

TABLE 31 AGC CERAMICS CO., LTD.: PRODUCTS/SOLUTIONS/SERVICES OFFERED

TABLE 32 MARUWA CO., LTD.: COMPANY OVERVIEW

TABLE 33 MARUWA CO., LTD.: PRODUCTS/SOLUTIONS/SERVICES OFFERED

TABLE 34 SAINT-GOBAIN PERFORMANCE CERAMICS & REFRACTORIES: COMPANY OVERVIEW

TABLE 35 SAINT-GOBAIN PERFORMANCE CERAMICS & REFRACTORIES: PRODUCTS/SOLUTIONS/SERVICES OFFERED

TABLE 36 PAUL RAUSCHERT GMBH & CO. KG.: COMPANY OVERVIEW

TABLE 37 PAUL RAUSCHERT GMBH & CO. KG.: PRODUCTS/SOLUTIONS/SERVICES OFFERED

TABLE 38 ELAN TECHNOLOGY: COMPANY OVERVIEW

TABLE 39 ELAN TECHNOLOGY: PRODUCTS/SOLUTIONS/SERVICES OFFERED

TABLE 40 OERLIKON: COMPANY OVERVIEW

TABLE 41 NISHIMURA ADVANCED CERAMICS CO., LTD.: COMPANY OVERVIEW

TABLE 42 MCDANEL ADVANCED MATERIAL TECHNOLOGIES LLC: COMPANY OVERVIEW

TABLE 43 ORTECH, INC.: COMPANY OVERVIEW

TABLE 44 MATERION CORPORATION: COMPANY OVERVIEW

TABLE 45 BLASCH PRECISION CERAMICS, INC.: COMPANY OVERVIEW

TABLE 46 FERROTEC: COMPANY OVERVIEW

TABLE 47 COIC: COMPANY OVERVIEW

TABLE 48 BCE SPECIAL CERAMICS GMBH: COMPANY OVERVIEW

TABLE 49 STC MATERIAL SOLUTIONS: COMPANY OVERVIEW

TABLE 50 MOMENTIVE TECHNOLOGIES: COMPANY OVERVIEW

TABLE 51 DYSON TECHNICAL CERAMICS: COMPANY OVERVIEW

TABLE 52 ADVANCED CERAMICS MANUFACTURING: COMPANY OVERVIEW

TABLE 53 BAKONY TECHNICAL CERAMICS: COMPANY OVERVIEW

TABLE 54 WONIK QNC CORPORATION: COMPANY OVERVIEW

List Of Figures

LIST OF FIGURES

FIGURE 1 ALUMINA CERAMICS TO LEAD MARKET DURING FORECAST PERIOD

FIGURE 2 MONOLITHIC CERAMICS APPLICATION TO DOMINATE MARKET DURING FORECAST PERIOD

FIGURE 3 ELECTRICAL & ELECTRONICS END-USE INDUSTRIES TO LEAD MARKET DURING FORECAST PERIOD

FIGURE 4 ASIA PACIFIC TO BE FASTEST-GROWING REGION DURING FORECAST PERIOD

FIGURE 5 ADVANCED CERAMICS MARKET: DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES

FIGURE 6 ADVANCED CERAMICS MARKET: PORTER'S FIVE FORCES ANALYSIS

FIGURE 7 ADVANCED CERAMICS VALUE CHAIN

FIGURE 8 ADVANCED CERAMICS ECOSYSTEM

FIGURE 9 TRENDS AND DISRUPTIONS IMPACTING CUSTOMER BUSINESS

FIGURE 10 ADVANCED CERAMICS MARKET: GRANTED PATENTS, 2015–2024

FIGURE 11 NUMBER OF PATENTS PER YEAR, 2015–2024

FIGURE 12 LEGAL STATUS OF PATENTS, 2015–2024

FIGURE 13 TOP JURISDICTION, BY DOCUMENT, 2015–2024

FIGURE 14 TOP 10 PATENT APPLICANTS, 2015–2024

FIGURE 15 ADVANCED CERAMICS MARKET: REVENUE ANALYSIS OF KEY COMPANIES, 2021–2023

FIGURE 16 ADVANCED CERAMICS MARKET SHARE ANALYSIS, 2023

FIGURE 17 ADVANCED CERAMICS MARKET: COMPANY VALUATION OF LEADING COMPANIES, 2023

FIGURE 18 ADVANCED CERAMICS MARKET: FINANCIAL METRICS OF LEADING COMPANIES, 2023

FIGURE 19 ADVANCED CERAMICS MARKET: BRAND/PRODUCT COMPARISON

FIGURE 20 ADVANCED CERAMICS MARKET: COMPANY EVALUATION MATRIX (KEY PLAYERS), 2023

FIGURE 21 ADVANCED CERAMICS MARKET: COMPANY FOOTPRINT

FIGURE 22 ADVANCED CERAMICS MARKET: COMPANY EVALUATION MATRIX (STARTUPS/SMES), 2023

FIGURE 23 KYOCERA CORPORATION: COMPANY SNAPSHOT

FIGURE 24 MORGAN ADVANCED MATERIALS: COMPANY SNAPSHOT

FIGURE 25 3M: COMPANY SNAPSHOT

FIGURE 26 AGC CERAMICS CO., LTD.: COMPANY SNAPSHOT

FIGURE 27 MARUWA CO., LTD.: COMPANY SNAPSHOT

FIGURE 28 ADVANCED CERAMICS MARKET: RESEARCH DESIGN

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