

Advanced Ceramics - Company Evaluation Report, 2024

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Report description:

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

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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.

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