

Silicon Carbide Composite Market is Expected to Reach a Valuation of USD 5,708.1 Million in 2035.

Next-Generation Silicon Carbide Composites Drive Unprecedented Growth in Aerospace and Automotive Sectors, States Fact.MR

ROCKVILLE, MD, UNITED STATES, July 24, 2025 /EINPresswire.com/ -- According to Fact.MR, a market research and competitive intelligence provider, the <u>silicon carbide composite</u> market was valued at USD 1,034.2



million in 2024 and is expected to grow at a CAGR of 16.8% during the forecast period of 2025 to 2035.

The market for SiC-based composites shows unexpected growth because industries now recognize the outstanding properties which span thermal, mechanical and electrical operations. The combination of silicon carbide with matrices enables scientists to manufacture performance-enhanced composites that function better than traditional materials under harsh conditions. SiC composites find essential roles in next-generation applications because they display stellar performance in temperature extremes along with corrosion tolerance and resistance to wear making them vital for aerospace uses alongside automotive and energy and electronic applications.

The expanding marketplace driven by the demand for durable lightweight materials featuring enhanced performance capabilities continues to push market growth forward. SiC composites solve fundamental problems in electric vehicle production while improving renewable energy infrastructure and aerospace component development through their strong-to-weight ratio capabilities. Industry leaders advance investments in research alongside manufacturing capabilities to meet escalating market needs while production improvements coupled with cost reductions enhance these advanced materials' accessibility to previously restricted sectors and market segments.

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Key Takeaways from Market Study

- * The silicon carbide composite market is projected to grow at 8% CAGR and reach USD 5,708.1 million by 2035
- * he market created an absolute \$ opportunity of USD 130.7 million between 2025 to 2035
- * East Asia is a prominent region that is estimated to hold a market share of 8% in 2035
- * East Asia is expected to create an absolute \$ opportunity of USD 2,092.5 million

"Renewable energy expansion, electric vehicle adoption, heightened aerospace demands, stringent emission regulations, and technological breakthroughs in semiconductor applications are collectively propelling unprecedented growth in the silicon carbide composite market" says a Fact.MR analyst.

Leading Players Driving Innovation in the Silicon Carbide Composites Market:

Key players in the market are COI Ceramics, General Electric, Rolls-Royce, SGL Carbon, Kyocera, Ube Industries, NGS Advanced Fibers, Suzhou Saifei Group, Saint-Gobain, Morgan Advanced Materials, CoorsTek, CeramTec, Schunk Group, and Tokai Carbon.

Market Development

Recent market data shows silicon carbide composites are experiencing rapid expansion across the semiconductor industry as they power improved performance in electronic components. Modern production technologies enable dramatic scalability improvements and new fabrication techniques deliver improved material consistency and performance results. The aerospace and defense sectors progressively incorporate composites into their critical components that need to endure extreme operating conditions.

The growing commitment to renewable energy systems across the globe has generated major business prospects that require SiC composites as fundamental elements in wind turbines and solar panels and hydrogen production systems. The developing partnership between material manufacturers and end-users speeds up development of customized solutions while expanding markets in emerging economies that require these materials to push forward their industrial modernization initiatives.

For example, In May 2024, Tokai Carbon and Soitec entered into a strategic partnership to develop polycrystalline silicon carbide substrates for Soitec's SmartSiC™ wafers. Under this agreement, Tokai Carbon will supply 150mm and 200mm poly-SiC substrates, contributing to the global ramp-up of SmartSiC™ wafer production for power electronics applications.

Silicon Carbide Composites Industry News:

March 2025: Schunk Group acquired ESK-SIC GmbH to expand its silicon carbide (SiC) offerings, especially boosting its IntrinSiC 3D-printed SiC components business.

February 2024: Kyocera Fineceramics Europe partnered with ESK-SIC GmbH to enhance SiC production efficiency and sustainability through new tech and recycling efforts.

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More Valuable Insights on Offer

Fact.MR, in its new offering, presents an unbiased analysis of the silicon carbide composite market, presenting historical data for 2020 to 2024 and forecast statistics for 2025 to 2035.

By Composite Type (Ceramic Matrix Composites (CMCs), Metal Matrix Composites (MMCs), Polymer Matrix Composites (PMCs), and Others), By Reinforcement Type (Continuous Fibers, Discontinuous Fibers, Whiskers, Particles, Others), By Manufacturing Process (Chemical Vapor Infiltration (CVI), Polymer Infiltration and Pyrolysis (PIP), Hot Pressing, Sintering, Others), and By End-Use Industry (Aerospace and Defense, Automotive, Energy, Electronics and Semiconductors, Nuclear, and Others), and across major regions of the World (North America, Latin America, Western Europe, Eastern Europe, East Asia, South Asia & Pacific, and Middle East & Africa).

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The <u>silicone resins market</u> will have steady growth with global revenue in 2025 at USD 1.04 billion and moving on to increase at a rate to USD 1.72 billion by 2035.

The global <u>silicone adhesives market</u> was valued at USD 1,365 Million in 2024 and has been projected to expand at a noteworthy CAGR of 6.2% to end up at USD 2,647.1 Million by 2035.

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Contact:

US Sales Office:

11140 Rockville Pike

Suite 400

Rockville, MD 20852

United States

Tel: +1 (628) 251-1583

Sales Team : sales@factmr.com Follow Us: LinkedIn | Twitter | Blog

S. N. Jha Fact.MR + +1 628-251-1583 sales@factmr.com

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