

Silica Sand Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Grade (A, B, C, D, E, F, Others), By Application (Glass Manufacturing, Foundry, Hydraulic Fracturing, Chemical Production, Construction, Paints & Coatings, Ceramics & Refractories, Others), By Region & Competition, 2020-2030F

Market Report | 2025-08-25 | 185 pages | TechSci Research

AVAILABLE LICENSES:

- Single User License \$4500.00
- Multi-User License \$5500.00
- Custom Research License \$8000.00

Report description:

Market Overview

The Silica Sand market was valued at USD 25.28 Billion in 2024 and is expected to reach USD 34.35 Billion by 2030 with a CAGR of 5.20%. Silica sand, also known as quartz or industrial sand, is composed mostly of two elements, silica, and Oxygen. This sand is utilized in a wide range of applications, including road paving, glass manufacturing, foundries, and coal-fired boilers, oil and water filtering, industrial casting, and sandblasting. Moreover, the increasing use of silica in glass manufacturing is owing to its high chemical purity and strong thermal and radiation resistance, which significantly enhances the applicability of the glass. Silica sand provides high transparency across the ultraviolet to infrared spectral range, making it suitable for various applications such as crockery and windows. Its effectiveness as a filter medium makes it highly sought after for filtration purposes in portable water Filters, pool filters, and sewage treatment plants. Its unique property to retain impurity-containing precipitates and dirt particles while ensuring adequate filtering makes it an ideal choice.

Silica sand finds extensive usage in foundries and coal-fired boilers due to its physical and chemical properties. With a higher melting temperature compared to iron, copper, Aluminum, and other common metals, it simplifies the preparation of castings. Its excellent resistance to heat and chemical reactions, combined with its strength and high quartz concentration, makes it an essential component in the hydraulic fracturing process. The unique properties of silica sand, including its strength and homogenous shape and size, make it an excellent filter bed, yielding desired results and making it the preferred choice. Despite the presence of commonly occurring impurities, the absence of these impurities in silica sand makes it less chemically reactive, light in color, pure, and endowed with a vitreous luster. These qualities make it highly preferred over other types of sand. Additionally, silica sand is a nonconductor of electricity, diamagnetic, and possesses remarkable hardness and strength, further

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

expanding its applications in construction and manufacturing activities, thereby driving market revenue growth.

Key Market Drivers

Growing Demand of Silica Sand in Construction Industry

The global silica sand market is experiencing significant growth, driven by the increasing demand within the construction industry. This demand is primarily fueled by the ongoing urbanization and infrastructure development projects taking place worldwide, particularly in emerging economies. China has undergone accelerated infrastructure expansion, particularly in the transportation sector, fueled by large-scale government investments and the issuance of special-purpose bonds. By 2023, the country had extended its highway network to over 183,000 kilometers and its high-speed rail system to 43,700 kilometers, making it the largest globally. This infrastructure build-out not only enhances domestic connectivity and logistics efficiency but also supports industrial growth and urban development on a national scale.

Silica sand, also known as industrial sand, holds a pivotal role in the construction sector as one of the most commonly used materials. It serves as a crucial ingredient in the production of concrete and glass, which are essential components of modern construction projects. Additionally, silica sand finds utility in the manufacturing of fillers and extenders, soil and turf infill, and certain types of specialty glass.

The demand for silica sand is particularly high in fast-growing economies such as China and India. These countries are witnessing rapid urbanization and significant infrastructure development, driving the need for abundant construction materials. Moreover, technological advancements in the construction sector, like the rising trend of using silica sand in 3D printing processes, contribute to the increasing demand. Through additive manufacturing, silica sand acts as a primary raw material for creating molds and cores for casting metal parts, further fueling its usage.

Silica sand plays a role in promoting sustainable construction practices. An example of this is its use in the manufacture of eco-friendly bricks, known as "sand-lime" or "calcium silicate" bricks. By combining silica sand with lime, these bricks offer a sustainable and cost-effective alternative to traditional clay bricks, aligning with the growing emphasis on environmentally friendly construction materials.

As the construction industry continues to evolve and witness advancements, the demand for silica sand is expected to persist and even grow further. The versatile applications, along with its contribution to sustainable construction practices, make silica sand an indispensable resource in the ever-expanding realm of construction materials.

Key Market Challenges

Environmental Concerns and Regulations

Silica sand mining, a prevalent industry, has significant environmental impacts that cannot be overlooked. This extractive activity can lead to the degradation of land, resulting in the loss of vital ecosystems and the displacement of diverse wildlife. Moreover, the release of mining by-products can contaminate groundwater, posing a threat to both human and ecological health.

The process of silica sand mining contributes to air pollution, as minute particles of silica dust become airborne. These airborne particles can have detrimental effects on human respiratory systems and can also settle on nearby vegetation, impairing plant growth and agricultural productivity.

In response to the environmental concerns associated with silica sand mining, governments across the globe are taking necessary steps to implement stricter regulations. These regulations mandate mining companies to conduct comprehensive environmental impact assessments and develop robust environmental management plans. Additionally, companies are required to implement measures to mitigate the negative impacts of their operations, further ensuring the protection of the environment and local communities.

While these regulations are crucial for safeguarding the environment, they also pose challenges to the growth and expansion of the silica sand market. Compliance with these regulations increases operational costs for mining companies, making it more difficult to sustain profitability and hinder the market's potential growth.

There is mounting pressure on companies in the silica sand market to embrace sustainable practices. This includes adopting eco-friendly mining techniques that minimize habitat disruption and reduce the consumption of water and energy resources. Additionally, companies are encouraged to implement measures to restore mined areas, promoting ecological balance and biodiversity conservation.

While the adoption of sustainable practices can help mitigate the environmental impact of silica sand mining, it necessitates

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

significant investment. This financial commitment further adds to operational costs, posing challenges for companies already navigating a competitive market landscape.

Key Market Trends

Rising Demand in the Glass Industry

Silica sand, known for its high silica content and minimal impurities, plays a crucial role as a raw material in glass manufacturing. Its abundant silicon dioxide content determines the color, clarity, and strength of the final glass product, making it an indispensable component in the industry.

The global glass industry is experiencing rapid expansion, primarily driven by the thriving construction, automotive, and electronics sectors that heavily rely on glass applications. Moreover, the growing production of consumer goods, including food and beverage packaging, household appliances, and personal care products, further fuels the demand for glass and subsequently amplifies the need for silica sand.

The continuous innovations in glass manufacturing, such as the development of energy-efficient, self-cleaning, and smart glass, are expected to significantly contribute to the escalating demand for silica sand. Additionally, sustainability trends within the glass industry, encompassing recycling and lightweighting, necessitate the utilization of high-quality silica sand to ensure the production of lightweight, high-strength, and recyclable glass products.

While the initial impact of the COVID-19 pandemic resulted in a decline in demand due to reduced consumer spending and travel restrictions, the market is now witnessing a rebound as economies recover and businesses gradually reopen. Notably, the increased installation of glass barriers in public spaces as a safety measure during the pandemic has further stimulated the resurgence of the glass industry and, consequently, the silica sand market.

Key Market Players

- Badger Mining Corporation
- Chongqing Changjiang River Moulding Material (Group) Co. Ltd.
- Covia Holdings LLC
- Euroquarz GmbH (Possehl Group)
- JFE Mineral & Alloy Company Ltd. (JFE Holdings Inc.)
- Manley Bros. of Indiana Inc.
- Mitsubishi Corporation
- Quarzwerke GmbH
- Tochu Corporation
- SCR-Sibelco NV

Report Scope:

In this report, the Global Silica Sand Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

□□Silica Sand Market, By Grade:

- o A
- o B
- o C
- o D
- o E
- o F
- o Others

□□Silica Sand Market, By Application:

- o Glass Manufacturing
- o Foundry
- o Hydraulic Fracturing
- o Chemical Production
- o Construction

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- o Paints & Coatings
- o Ceramics & Refractories
- o Others
- Silica Sand Market, By Region:
 - o North America
 - United States
 - Canada
 - Mexico
 - o Europe
 - France
 - United Kingdom
 - Italy
 - Germany
 - Spain
 - o Asia-Pacific
 - China
 - India
 - Japan
 - Australia
 - South Korea
 - o South America
 - Brazil
 - Argentina
 - Colombia
 - o Middle East & Africa
 - South Africa
 - Saudi Arabia
 - UAE

Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in the Global Silica Sand Market.

Available Customizations:

Global Silica Sand Market report with the given market data, TechSci Research offers customizations according to a company's specific needs. The following customization options are available for the report:

Company Information

□□Detailed analysis and profiling of additional market players (up to five).

Table of Contents:

1. Product Overview
 - 1.1. Market Definition
 - 1.2. Scope of the Market
 - 1.2.1. Markets Covered
 - 1.2.2. Years Considered for Study
 - 1.2.3. Key Market Segmentations
2. Research Methodology
 - 2.1. Objective of the Study
 - 2.2. Baseline Methodology
 - 2.3. Key Industry Partners

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- 2.4. Major Association and Secondary Sources
- 2.5. Forecasting Methodology
- 2.6. Data Triangulation & Validation
- 2.7. Assumptions and Limitations
- 3. Executive Summary
 - 3.1. Overview of the Market
 - 3.2. Overview of Key Market Segmentations
 - 3.3. Overview of Key Market Players
 - 3.4. Overview of Key Regions/Countries
 - 3.5. Overview of Market Drivers, Challenges, Trends
- 4. Voice of Customer
- 5. Silica Sand Market Outlook
 - 5.1. Market Size & Forecast
 - 5.1.1. By Value
 - 5.2. Market Share & Forecast
 - 5.2.1. By Grade (A, B, C, D, E, F, Others)
 - 5.2.2. By Application (Glass Manufacturing, Foundry, Hydraulic Fracturing, Chemical Production, Construction, Paints & Coatings, Ceramics & Refractories, Others)
 - 5.2.3. By Region
 - 5.2.4. By Company (2024)
 - 5.3. Market Map
- 6. North America Silica Sand Market Outlook
 - 6.1. Market Size & Forecast
 - 6.1.1. By Value
 - 6.2. Market Share & Forecast
 - 6.2.1. By Grade
 - 6.2.2. By Application
 - 6.2.3. By Country
 - 6.3. North America: Country Analysis
 - 6.3.1. United States Silica Sand Market Outlook
 - 6.3.1.1. Market Size & Forecast
 - 6.3.1.1.1. By Value
 - 6.3.1.2. Market Share & Forecast
 - 6.3.1.2.1. By Grade
 - 6.3.1.2.2. By Application
 - 6.3.2. Canada Silica Sand Market Outlook
 - 6.3.2.1. Market Size & Forecast
 - 6.3.2.1.1. By Value
 - 6.3.2.2. Market Share & Forecast
 - 6.3.2.2.1. By Grade
 - 6.3.2.2.2. By Application
 - 6.3.3. Mexico Silica Sand Market Outlook
 - 6.3.3.1. Market Size & Forecast
 - 6.3.3.1.1. By Value
 - 6.3.3.2. Market Share & Forecast
 - 6.3.3.2.1. By Grade
 - 6.3.3.2.2. By Application

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- 7. Europe Silica Sand Market Outlook
 - 7.1. Market Size & Forecast
 - 7.1.1. By Value
 - 7.2. Market Share & Forecast
 - 7.2.1. By Grade
 - 7.2.2. By Application
 - 7.2.3. By Country
 - 7.3. Europe: Country Analysis
 - 7.3.1. Germany Silica Sand Market Outlook
 - 7.3.1.1. Market Size & Forecast
 - 7.3.1.1.1. By Value
 - 7.3.1.2. Market Share & Forecast
 - 7.3.1.2.1. By Grade
 - 7.3.1.2.2. By Application
 - 7.3.2. United Kingdom Silica Sand Market Outlook
 - 7.3.2.1. Market Size & Forecast
 - 7.3.2.1.1. By Value
 - 7.3.2.2. Market Share & Forecast
 - 7.3.2.2.1. By Grade
 - 7.3.2.2.2. By Application
 - 7.3.3. Italy Silica Sand Market Outlook
 - 7.3.3.1. Market Size & Forecast
 - 7.3.3.1.1. By Value
 - 7.3.3.2. Market Share & Forecast
 - 7.3.3.2.1. By Grade
 - 7.3.3.2.2. By Application
 - 7.3.4. France Silica Sand Market Outlook
 - 7.3.4.1. Market Size & Forecast
 - 7.3.4.1.1. By Value
 - 7.3.4.2. Market Share & Forecast
 - 7.3.4.2.1. By Grade
 - 7.3.4.2.2. By Application
 - 7.3.5. Spain Silica Sand Market Outlook
 - 7.3.5.1. Market Size & Forecast
 - 7.3.5.1.1. By Value
 - 7.3.5.2. Market Share & Forecast
 - 7.3.5.2.1. By Grade
 - 7.3.5.2.2. By Application
 - 8. Asia-Pacific Silica Sand Market Outlook
 - 8.1. Market Size & Forecast
 - 8.1.1. By Value
 - 8.2. Market Share & Forecast
 - 8.2.1. By Grade
 - 8.2.2. By Application
 - 8.2.3. By Country
 - 8.3. Asia-Pacific: Country Analysis
 - 8.3.1. China Silica Sand Market Outlook

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- 8.3.1.1. Market Size & Forecast
 - 8.3.1.1.1. By Value
- 8.3.1.2. Market Share & Forecast
 - 8.3.1.2.1. By Grade
 - 8.3.1.2.2. By Application
- 8.3.2. India Silica Sand Market Outlook
 - 8.3.2.1. Market Size & Forecast
 - 8.3.2.1.1. By Value
 - 8.3.2.2. Market Share & Forecast
 - 8.3.2.2.1. By Grade
 - 8.3.2.2.2. By Application
- 8.3.3. Japan Silica Sand Market Outlook
 - 8.3.3.1. Market Size & Forecast
 - 8.3.3.1.1. By Value
 - 8.3.3.2. Market Share & Forecast
 - 8.3.3.2.1. By Grade
 - 8.3.3.2.2. By Application
- 8.3.4. South Korea Silica Sand Market Outlook
 - 8.3.4.1. Market Size & Forecast
 - 8.3.4.1.1. By Value
 - 8.3.4.2. Market Share & Forecast
 - 8.3.4.2.1. By Grade
 - 8.3.4.2.2. By Application
- 8.3.5. Australia Silica Sand Market Outlook
 - 8.3.5.1. Market Size & Forecast
 - 8.3.5.1.1. By Value
 - 8.3.5.2. Market Share & Forecast
 - 8.3.5.2.1. By Grade
 - 8.3.5.2.2. By Application
- 9. South America Silica Sand Market Outlook
 - 9.1. Market Size & Forecast
 - 9.1.1. By Value
 - 9.2. Market Share & Forecast
 - 9.2.1. By Grade
 - 9.2.2. By Application
 - 9.2.3. By Country
 - 9.3. South America: Country Analysis
 - 9.3.1. Brazil Silica Sand Market Outlook
 - 9.3.1.1. Market Size & Forecast
 - 9.3.1.1.1. By Value
 - 9.3.1.2. Market Share & Forecast
 - 9.3.1.2.1. By Grade
 - 9.3.1.2.2. By Application
 - 9.3.2. Argentina Silica Sand Market Outlook
 - 9.3.2.1. Market Size & Forecast
 - 9.3.2.1.1. By Value
 - 9.3.2.2. Market Share & Forecast

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- 9.3.2.2.1. By Grade
- 9.3.2.2.2. By Application
- 9.3.3. Colombia Silica Sand Market Outlook
 - 9.3.3.1. Market Size & Forecast
 - 9.3.3.1.1. By Value
 - 9.3.3.2. Market Share & Forecast
 - 9.3.3.2.1. By Grade
 - 9.3.3.2.2. By Application
- 10. Middle East and Africa Silica Sand Market Outlook
 - 10.1. Market Size & Forecast
 - 10.1.1. By Value
 - 10.2. Market Share & Forecast
 - 10.2.1. By Grade
 - 10.2.2. By Application
 - 10.2.3. By Country
 - 10.3. MEA: Country Analysis
 - 10.3.1. South Africa Silica Sand Market Outlook
 - 10.3.1.1. Market Size & Forecast
 - 10.3.1.1.1. By Value
 - 10.3.1.2. Market Share & Forecast
 - 10.3.1.2.1. By Grade
 - 10.3.1.2.2. By Application
 - 10.3.2. Saudi Arabia Silica Sand Market Outlook
 - 10.3.2.1. Market Size & Forecast
 - 10.3.2.1.1. By Value
 - 10.3.2.2. Market Share & Forecast
 - 10.3.2.2.1. By Grade
 - 10.3.2.2.2. By Application
 - 10.3.3. UAE Silica Sand Market Outlook
 - 10.3.3.1. Market Size & Forecast
 - 10.3.3.1.1. By Value
 - 10.3.3.2. Market Share & Forecast
 - 10.3.3.2.1. By Grade
 - 10.3.3.2.2. By Application
- 11. Market Dynamics
 - 11.1. Drivers
 - 11.2. Challenges
- 12. Market Trends & Developments
 - 12.1. Recent Developments
 - 12.2. Product Launches
 - 12.3. Mergers & Acquisitions
- 13. Global Silica Sand Market: SWOT Analysis
- 14. Competitive Landscape
 - 14.1. Badger Mining Corporation
 - 14.1.1. Business Overview
 - 14.1.2. Product & Service Offerings
 - 14.1.3. Recent Developments

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- 14.1.4. Financials (If Listed)
- 14.1.5. Key Personnel
- 14.1.6. SWOT Analysis
- 14.2. Chongqing Changjiang River Moulding Material (Group) Co. Ltd.
- 14.3. Covia Holdings LLC
- 14.4. Euroquarz GmbH (Possehl Group)
- 14.5. JFE Mineral & Alloy Company Ltd. (JFE Holdings Inc.)
- 14.6. Manley Bros. of Indiana Inc.
- 14.7. Mitsubishi Corporation
- 14.8. Quarzwerke GmbH
- 14.9. Tochu Corporation
- 14.10. SCR-Sibelco NV
- 15. Strategic Recommendations
- 16. About Us & Disclaimer

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

Silica Sand Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Grade (A, B, C, D, E, F, Others), By Application (Glass Manufacturing, Foundry, Hydraulic Fracturing, Chemical Production, Construction, Paints & Coatings, Ceramics & Refractories, Others), By Region & Competition, 2020-2030F

Market Report | 2025-08-25 | 185 pages | TechSci Research

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	\$4500.00
	Multi-User License	\$5500.00
	Custom Research License	\$8000.00
		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"/>

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

Date

2026-03-04

Signature

A large, empty rectangular box with a thin black border, intended for a signature.

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com