

North America Quartz Glass Market By End-User Industry (Semiconductors, Lighting, Optics, Pharmaceuticals, Aerospace & Defense), By Form (Rods, Tubes, Plates, Fibers, Powders), By Purity Grade (High Purity, Ultra High Purity), By Application (Display Substrates, Optical Fiber, Medical Devices, Semiconductor Manufacturing, Chemical Processing), By Country, Competition, Forecast and Opportunities, 2020-2030F

Market Report | 2025-05-30 | 120 pages | TechSci Research

AVAILABLE LICENSES:

- Single User License \$4000.00
- Multi-User License \$5000.00
- Custom Research License \$7500.00

Report description:

Market Overview

The North America Quartz Glass Market was valued at USD 1.38 billion in 2024 and is projected to reach USD 1.99 billion by 2030, growing at a CAGR of 6.29% during the forecast period. Quartz glass, or fused silica, is a high-purity material made from silicon dioxide, prized for its outstanding thermal stability, chemical resistance, and optical clarity. The market is gaining momentum across North America due to its extensive applications in industries such as semiconductors, fiber optics, pharmaceuticals, and solar energy. A key growth factor is the expansion of the semiconductor manufacturing sector in the United States, bolstered by onshoring initiatives and government support. Quartz glass plays a critical role in producing photomasks, wafers, and reaction chambers, which require extreme thermal tolerance and dimensional stability. The increasing deployment of fiber optic cables for high-speed data transmission also drives demand. Additionally, its use in labware, analytical instruments, and solar technologies supports adoption in healthcare and renewable energy sectors. With technological advancements and a robust regional industrial base, the North America quartz glass market is positioned for sustained expansion in the coming years.

Key Market Drivers

Increasing Semiconductor Fabrication in the Region

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

The growth of semiconductor manufacturing facilities across North America is a major driver for the quartz glass market. As the U.S. boosts domestic chip production to mitigate supply chain risks, quartz glass is seeing rising demand due to its role in critical fabrication components like diffusion tubes, wafers, and photomasks. Quartz's high thermal and chemical resistance makes it ideal for the precision and purity needed in advanced node processing and EUV lithography. Federal support through initiatives such as the CHIPS and Science Act has catalyzed investment in chip fabrication plants, notably Intel's USD 20 billion Arizona facility. These developments are translating into a direct rise in demand for high-performance quartz materials that support contamination-free, high-temperature processes in next-generation semiconductor manufacturing.

Key Market Challenges

High Manufacturing Costs and Energy-Intensive Production Processes

The production of quartz glass presents significant cost challenges due to the requirement for ultra-pure raw materials and energy-intensive processing at extremely high temperatures. Specialized equipment, precision handling, and skilled labor add further to operational expenses. These factors lead to elevated manufacturing costs compared to more conventional glass types. Additionally, fluctuating demand from cyclical industries like semiconductors and solar energy complicates production planning and scalability. North American producers also face stiff price competition from Asian manufacturers who benefit from lower energy costs and larger economies of scale. This cost disparity makes it difficult for regional suppliers to maintain competitiveness, especially in price-sensitive market segments.

Key Market Trends

Rising Adoption of Quartz Glass in Semiconductor Fabrication Processes

The integration of quartz glass into semiconductor manufacturing is becoming increasingly critical as fabrication processes advance toward smaller nodes and more complex architectures. Quartz components, including reaction chambers and photomask substrates, are essential in high-purity environments required for processes like chemical vapor deposition and photolithography. With U.S.-based chip production expanding under national reshoring strategies and government incentives, the role of quartz glass in maintaining process integrity and efficiency is growing. This trend signals strong, sustained demand for ultra-pure quartz in cleanroom and wafer fabrication environments as North America builds out its semiconductor supply chain infrastructure.

Key Market Players

- Heraeus Holding GmbH
- Momentive Performance Materials Inc.
- Tosoh Corporation
- Nippon Electric Glass Co., Ltd.
- Corning Incorporated
- Mitsubishi Chemical Corporation
- Hoshine Silicon Industry Co., Ltd.
- Shanghai Haohong Quartz Co., Ltd.

Report Scope:

In this report, the North America Quartz Glass Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

- North America Quartz Glass Market, By End-User Industry:

- o Semiconductors
- o Lighting
- o Optics
- o Pharmaceuticals
- o Aerospace & Defense

- North America Quartz Glass Market, By Form:

- o Rods
- o Tubes
- o Plate
- o Fibers

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- o Powders
- North America Quartz Glass Market, By Purity Grade:
 - o High Purity
 - o Ultra High Purity
- North America Quartz Glass Market, By Application:
 - o Display Substrates
 - o Optical Fiber
 - o Medical Devices
 - o Semiconductor Manufacturing
 - o Chemical Processing
- North America Quartz Glass Market, By Country:
 - o United States
 - o Canada
 - o Mexico

Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in the North America Quartz Glass Market.

Available Customizations:

North America Quartz Glass 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
 - 1.3. Key Market Segmentations
2. Research Methodology
 - 2.1. Objective of the Study
 - 2.2. Baseline Methodology
 - 2.3. Formulation of the Scope
 - 2.4. Assumptions and Limitations
 - 2.5. Sources of Research
 - 2.5.1. Secondary Research
 - 2.5.2. Primary Research
 - 2.6. Approach for the Market Study
 - 2.6.1. The Bottom-Up Approach
 - 2.6.2. The Top-Down Approach
 - 2.7. Methodology Followed for Calculation of Market Size & Market Shares
 - 2.8. Forecasting Methodology
 - 2.8.1. Data Triangulation & Validation
3. Executive Summary
 - 3.1. Overview of the Market
 - 3.2. Overview of Key Market Segmentations

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- 3.3. Overview of Key Market Players
- 3.4. Overview of Key Regions/Countries
- 3.5. Overview of Market Drivers, Challenges, and Trends
- 4. Voice of Customer
- 5. North America Quartz Glass Market Outlook
 - 5.1. Market Size & Forecast
 - 5.1.1. By Value
 - 5.2. Market Share & Forecast
 - 5.2.1. By End-User Industry (Semiconductors, Lighting, Optics, Pharmaceuticals, Aerospace & Defense)
 - 5.2.2. By Form (Rods, Tubes, Plates, Fibers, Powders)
 - 5.2.3. By Purity Grade (High Purity, Ultra High Purity)
 - 5.2.4. By Application (Display Substrates, Optical Fiber, Medical Devices, Semiconductor Manufacturing, Chemical Processing)
 - 5.2.5. By Country (United States, Canada, Mexico)
 - 5.2.6. By Company (2024)
- 5.3. Market Map
- 6. United States Quartz Glass Market Outlook
 - 6.1. Market Size & Forecast
 - 6.1.1. By Value
 - 6.2. Market Share & Forecast
 - 6.2.1. By End-User Industry
 - 6.2.2. By Form
 - 6.2.3. By Purity Grade
 - 6.2.4. By Application
- 7. Canada Quartz Glass Market Outlook
 - 7.1. Market Size & Forecast
 - 7.1.1. By Value
 - 7.2. Market Share & Forecast
 - 7.2.1. By End-User Industry
 - 7.2.2. By Form
 - 7.2.3. By Purity Grade
 - 7.2.4. By Application
- 8. Mexico Quartz Glass Market Outlook
 - 8.1. Market Size & Forecast
 - 8.1.1. By Value
 - 8.2. Market Share & Forecast
 - 8.2.1. By End-User Industry
 - 8.2.2. By Form
 - 8.2.3. By Purity Grade
 - 8.2.4. By Application
- 9. Market Dynamics
 - 9.1. Drivers
 - 9.2. Challenges
- 10. Market Trends & Developments
 - 10.1. Merger & Acquisition (If Any)
 - 10.2. Product Launches (If Any)
 - 10.3. Recent Developments
- 11. Company Profiles

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- 11.1. Heraeus Holding GmbH
 - 11.1.1. Business Overview
 - 11.1.2. Key Revenue and Financials
 - 11.1.3. Recent Developments
 - 11.1.4. Key Personnel/Key Contact Person
 - 11.1.5. Key Product/Services Offered
- 11.2. Momentive Performance Materials Inc.
- 11.3. Tosoh Corporation
- 11.4. Nippon Electric Glass Co., Ltd.
- 11.5. Corning Incorporated
- 11.6. Mitsubishi Chemical Corporation
- 11.7. Hoshine Silicon Industry Co., Ltd.
- 11.8. Shanghai Haohong Quartz Co., Ltd.
- 12. Strategic Recommendations
- 13. 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

North America Quartz Glass Market By End-User Industry (Semiconductors, Lighting, Optics, Pharmaceuticals, Aerospace & Defense), By Form (Rods, Tubes, Plates, Fibers, Powders), By Purity Grade (High Purity, Ultra High Purity), By Application (Display Substrates, Optical Fiber, Medical Devices, Semiconductor Manufacturing, Chemical Processing), By Country, Competition, Forecast and Opportunities, 2020-2030F

Market Report | 2025-05-30 | 120 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	\$4000.00
	Multi-User License	\$5000.00
	Custom Research License	\$7500.00
		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"/>		

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

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"/>
		Date	<input type="text" value="2026-02-19"/>
		Signature	<input type="text"/>