+357 96 030922
info@marketpublishers.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

https://marketpublishers.com/r/N05E92765EA5EN.html
Date: May 2025
Pages: 120
Price: US$ 4,000.00 (Single User License)
ID: N05E92765EA5EN

Abstracts

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

+357 96 030922
info@marketpublishers.com

market is positioned for sustained expansion in the coming years.

Key Market Drivers

Increasing Semiconductor Fabrication in the Region

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

+357 96 030922
info@marketpublishers.com

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:

Semiconductors

+357 96 030922
info@marketpublishers.com

Lighting

Optics

Pharmaceuticals

Aerospace & Defense

North America Quartz Glass Market, By Form:

Rods

Tubes

Plate

Fibers

Powders

North America Quartz Glass Market, By Purity Grade:

High Purity

Ultra High Purity

North America Quartz Glass Market, By Application:

Display Substrates

Optical Fiber

Medical Devices

Semiconductor Manufacturing

Chemical Processing

+357 96 030922
info@marketpublishers.com

North America Quartz Glass Market, By Country:

United States

Canada

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).

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

6. UNITED STATES QUARTZ GLASS MARKET OUTLOOK

7. CANADA QUARTZ GLASS MARKET OUTLOOK

8. MEXICO QUARTZ GLASS MARKET OUTLOOK

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: 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

Product link: https://marketpublishers.com/r/N05E92765EA5EN.html

Price: US$ 4,000.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/N05E92765EA5EN.html