

MICRO SCIENTIFIC GLASS CO

Precision crafted quartz glass

MicroQSIL
Quartz



Manufacturer & Supplier of Precision Quartz Components
Scientific • Laboratory • Industrial Applications




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COMPANY PROFILE

Micro Scientific Glass Co is a specialized manufacturer of high-purity quartz glass products, serving scientific, laboratory, semiconductor, and industrial applications. Based in Thane, Maharashtra (India), we focus exclusively on quartz glass processing, enabling us to deliver consistent quality, precision workmanship, and reliable performance.

With hands-on manufacturing expertise and in-house fabrication capabilities, we produce a wide range of fused quartz tubes, rods, plates, discs, optical windows, and laboratory glassware. Our products are designed to withstand high temperatures, thermal shock, and chemically demanding environments.

We also undertake custom quartz fabrication as per customer drawings, samples, or application requirements. Whether standard components or specialized prototypes, we work closely with customers to ensure dimensional accuracy, surface quality, and application suitability.

At Micro Scientific Glass Co, our commitment is simple:
High purity materials, precise manufacturing, and dependable service.

QUARTZ TUBES

MicroQSIL is a trusted manufacturer and exporter of high-purity quartz tubes in India engineered for UV transparency, high-temperature resistance, and exceptional chemical stability. Ideal for UV sterilization lamps quartz sleeve, semiconductor furnaces, laboratory reactors, Ozone generation and custom industrial applications.

Available in a wide range of diameters (2 mm – 500 mm), wall thicknesses, and custom lengths up to 3000 mm, our quartz glass tubes are ideal for both Indian and international applications — from Mumbai to Delhi NCR, Pune, Kolkata, Chennai, Bengaluru, and global OEMs.



APPLICATIONS :

Quartz glass tubes are essential components across a wide range of industries, from high-temperature manufacturing to medical sterilization. Known for their exceptional purity, thermal stability, and UV transmission, our quartz tubes deliver reliable performance in

- Industrial furnaces,
- UV disinfection systems
- Laboratory equipment
- Optical instruments
- Specialty engineering projects.

Whether you need diffusion furnace tubes, UV lamp sleeves, or custom quartz reactor tubes, our products are engineered to meet the highest standards of clarity, precision, and chemical resistance.

QUARTZ RODS

Our high-purity fused quartz rods are manufactured to meet the demanding requirements of high-temperature, laboratory, semiconductor, and industrial applications. Produced from carefully selected fused quartz material, these rods offer exceptional thermal stability, superior chemical resistance, and excellent optical clarity.

Quartz rods are widely recognized for their extremely low coefficient of thermal expansion, which allows them to withstand rapid temperature changes without cracking or deformation. This makes them particularly suitable for environments involving repeated heating and cooling cycles. Their high softening temperature and thermal shock resistance ensure reliable performance even under continuous exposure to elevated temperatures.



APPLICATIONS :

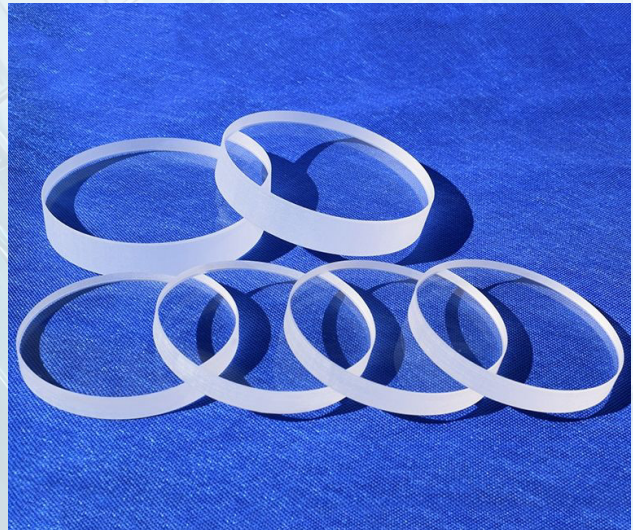
Quartz rods are widely used in:

- Furnace supports and spacers
- Semiconductor processing equipment
- Heating element supports
- Quartz fabrication and bending work
- Laboratory structural components
- High-temperature insulation assemblies
- UV and optical systems

QUARTZ DISCS AND WINDOWS

High Purity Quartz Disc is manufactured from premium fused (SiO_2 99.99%), ensuring unmatched purity, optical clarity, and durability. Designed for industries where precision and reliability are critical, Semiconductor quartz discs withstand extreme temperatures, thermal shock, and aggressive chemical environments.

With customizable sizes and thicknesses, we supply custom quartz disc tailored to your exact application—whether in semiconductor processing, optical systems, laboratory setups, or high-temperature industrial equipment.



CUSTOMIZATION OPTION :

Diameter Range: 5 mm – 500 mm

Thickness: 5 mm – 50 mm

Surface Finishes: Ground, polished, optical grade

Edge Options: Beveled, rounded, fire-polished

Tolerances: Diameter ± 0.02 mm, Thickness ± 0.01 mm

APPLICATIONS :

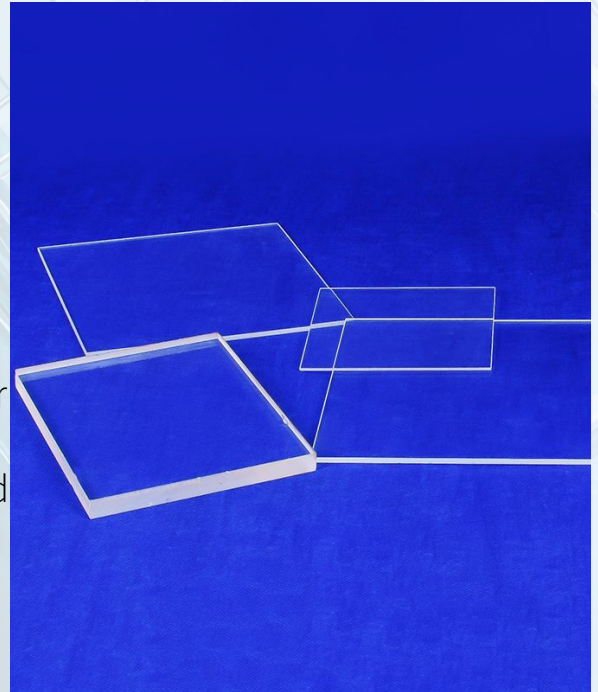
- Wafer processing, etching, and furnace components
- Lenses, windows, and sight glasses
- Optical lenses and windows in UV, Visible and IR systems
- Common in spectrometers, microscopes, and telescopes
- Common in Furnace, reactors and vacuum chambers
- Chemical-resistant covers and plates
- Laser windows, mirrors, and beam splitters
- Fused quartz can withstand high laser power and thermal loads
- Deep UV radiation (down to ~ 180 nm)
- Used in UV curing systems, Lithography
- Disinfection equipment, and solar simulators

QUARTZ PLATES AND SUBSTRATE

Our high-purity fused quartz plates and substrates are precision-cut components designed for optical, semiconductor, laboratory, and high-temperature applications. Manufactured from carefully selected fused quartz material, these plates offer exceptional thermal stability, excellent chemical resistance, and superior optical transmission.

Quartz plates and substrates are known for their extremely low coefficient of thermal expansion, allowing them to maintain dimensional stability even under rapid temperature fluctuations. Their high purity ensures minimal contamination, making them suitable for sensitive analytical and semiconductor processes.

Available in ground, polished, or optical-grade finishes, our quartz plates can be supplied in standard or custom dimensions as per customer requirements. Each component is inspected for dimensional accuracy, surface quality, and visual clarity to ensure consistent performance in demanding environments.



APPLICATIONS :

Quartz plates and substrates are widely used in:

- Semiconductor processing equipment
- Optical systems and UV transmission components
- Laser and photonics applications
- Spectroscopy and analytical instruments
- Furnace linings and thermal barriers
- Laboratory heating and reaction platforms
- Protective covers for high-temperature environments
- Research and development applications

QUARTZ FRITTED DISC

Quartz fritted discs, also called quartz sintered discs, are manufactured from premium fused silica (SiO_2 99.99%). Designed for industries that demand purity, durability, and thermal stability, these discs deliver reliable performance in semiconductor processing, laboratory filtration, and high-temperature applications.

- ✓ Resistant to aggressive chemicals
- ✓ Excellent optical clarity
- ✓ Withstands temperatures up to 1100°C
- ✓ Available in multiple porosity grades



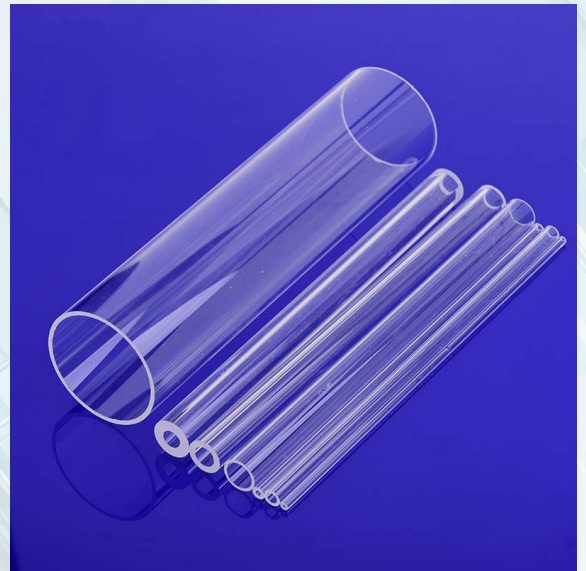
APPLICATIONS :

- Wafer processing and etching
- Diffusion and oxidation furnace components
- Gas filtration in cleanroom environments
- Filtration of aggressive chemicals, acids, and solvents
- Support base in chromatography and Soxhlet extraction
- Gas dispersion in chemical reactions
- Catalyst support in experimental setups
- Furnace filters and thermal barrier components
- Filtration under extreme heat conditions (up to 1100°C)
- Hot gas and vapor filtration
- Filtration of corrosive liquids and gases
- Catalyst carriers in chemical reactors
- High-purity separation in pharmaceutical and biotech setups
- Ultra-fine particle removal
- Purification in analytical labs
- Dispersion of gases into liquids (bubblers, aerators)

FUSED SILICA TRANSLUCENT TUBE

Our fused silica translucent tubes are manufactured from high-purity synthetic silica, offering excellent thermal resistance, low thermal expansion, and superior chemical stability. Unlike transparent quartz tubes, translucent fused silica tubes provide diffused light transmission and enhanced mechanical uniformity, making them ideal for specific thermal and industrial applications.

These tubes are designed to perform reliably under continuous high-temperature conditions and repeated thermal cycling. The material's low impurity content ensures stable performance, while its excellent resistance to most acids and corrosive environments makes it suitable for demanding laboratory and industrial processes.



APPLICATIONS :

Fused silica translucent tubes are commonly used in:

- High-temperature furnace applications
- Heating element protection sleeves
- Industrial thermal processing equipment
- Diffused light applications
- Chemical processing systems
- Semiconductor manufacturing processes
- Laboratory thermal setups
- Insulation and protective tubing

QUARTZ WOOL

Quartz wool is a high-purity fibrous material manufactured from fused quartz, designed for high-temperature insulation and laboratory applications. It offers excellent thermal stability, low thermal expansion, and superior resistance to chemical attack, making it suitable for demanding industrial and scientific environments.

Due to its high melting point and exceptional thermal shock resistance, quartz wool maintains structural integrity even under continuous exposure to elevated temperatures. Its fibrous structure provides effective thermal insulation while allowing controlled gas or air flow in analytical and filtration applications.



Quartz wool is chemically inert to most acids and reactive environments, making it ideal for use in laboratory setups, chemical processing systems, and high-temperature assemblies where contamination must be minimized..

APPLICATIONS :

Quartz wool is widely used in:

- High-temperature furnace insulation
- Laboratory filtration systems
- Gas chromatography column packing
- Thermal insulation barriers
- Semiconductor processing equipment
- Catalyst support applications
- Sealing and packing in high-temperature systems
- Flame and heat-resistant insulation setups

QUARTZ UV 96 WELL MICROPLATE

The Quartz UV 96 Well Microplate is manufactured from high-purity fused quartz, specifically designed for ultraviolet (UV) and spectroscopic applications requiring high optical transmission and chemical resistance. Unlike conventional plastic or glass microplates, quartz microplates offer superior UV transparency, excellent thermal stability, and outstanding resistance to aggressive chemicals.

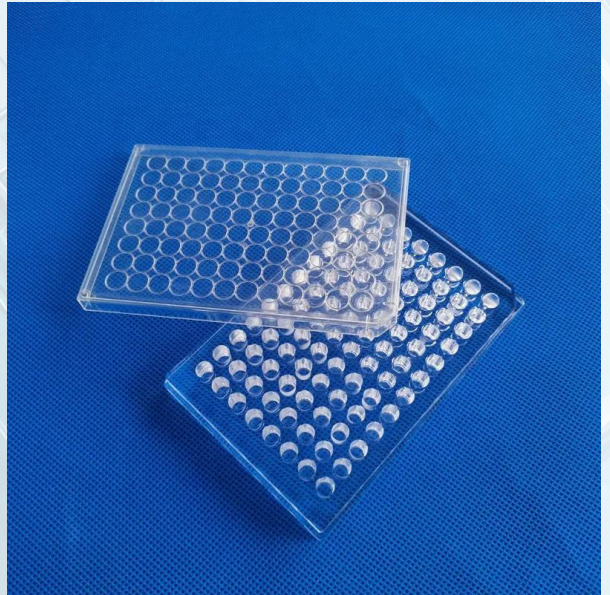
Engineered with precision-formed wells and consistent dimensional accuracy, the plate ensures reliable and repeatable analytical performance. The high optical clarity of fused quartz allows accurate measurements in the deep UV range, making it ideal for advanced research and analytical laboratories.

Quartz UV microplates are suitable for applications where material purity, optical performance, and durability are critical. Each microplate is inspected for surface finish, well uniformity, and optical quality to ensure dependable results in sensitive analytical procedures.

APPLICATIONS :

Quartz UV 96 Well Microplates are widely used in:

- UV-Visible spectrophotometry
- DNA, RNA, and protein analysis
- Enzyme assays
- Fluorescence and absorbance measurements
- Pharmaceutical research and quality control
- Biochemical and molecular biology studies
- Analytical and research laboratories



QUARTZ LABWARE



Our Quartz Labware is manufactured from high-purity fused quartz, designed for laboratory, analytical, and high-temperature applications requiring superior thermal stability and chemical resistance. Compared to conventional glassware, quartz labware offers significantly higher temperature capability, lower thermal expansion, and exceptional resistance to thermal shock.

We manufacture a wide range of quartz labware including crucibles, flasks, beakers, test tubes, dishes, boats, trays, lids, watch glasses, and custom-fabricated components. Products are available in standard designs or can be custom-made as per drawings and specific application requirements.

APPLICATIONS :

Quartz Labware is widely used in:

- High-temperature laboratory experiments
- Chemical processing and reaction studies
- Semiconductor research and manufacturing
- Thermal treatment and material testing
- Pharmaceutical and research laboratories
- Educational and scientific institutions

CUSTOM FABRICATION

Overview

Micro Scientific Glass Co specializes in custom fabrication of high-purity quartz components tailored to specific customer requirements. With in-house processing capabilities and experienced workmanship, we manufacture precision quartz products based on technical drawings, samples, or application specifications.

From simple cut-to-size components to complex fabricated assemblies, we ensure dimensional accuracy, structural integrity, and consistent material quality. Our fabrication process focuses exclusively on fused quartz, enabling us to deliver reliable performance for demanding scientific, semiconductor, and industrial applications.

Our Fabrication Capabilities

We offer:

- Custom-cut quartz tubes, rods, plates, and discs
- Precision drilling and machining
- Edge grinding and chamfering
- Polished and optical-grade finishes
- Bending and shaping of quartz tubes
- Assembly of multi-part quartz components
- Small-batch and prototype manufacturing
- Repair and modification of existing quartz parts

QUALITY ASSURANCE

Our Commitment to Quality

At Micro Scientific Glass Co, quality is an integral part of our manufacturing process. We are committed to delivering high-purity quartz products that meet strict dimensional, visual, and performance standards required for scientific, laboratory, and industrial applications.

Every stage of production — from raw material selection to final inspection — is carefully monitored to ensure consistent quality and reliability.

Raw Material Control

- Use of high-purity fused quartz and fused silica
- Material inspection before processing
- Controlled storage to prevent contamination

In-Process Quality Checks

- Dimensional verification during cutting and machining
- Surface finish inspection
- Monitoring of fabrication processes
- Precision edge finishing and polishing control

Final Inspection

Each product is inspected for:

- Dimensional accuracy
- Surface quality and clarity
- Structural integrity
- Visual defects (bubbles, cracks, contamination)
- Finish as per customer requirement
- Only products meeting our internal quality standards are approved for dispatch.

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