



TOQUARTZ

Product Catalog

TOQUARTZ® Quartz Cuvette with Two Optical Windows and PTFE Lid

Integrated Engineering & Agile Production
for Demanded Specifications





TOQUARTZ® QUARTZ CUVETTE WITH TWO OPTICAL WINDOWS AND PTFE LID

TOQUARTZ® is a specialized manufacturer of high-purity quartz products based in China, serving global B2B clients in laboratory instrumentation, biomedical research, and environmental monitoring. With in-house engineering support and flexible production capabilities, we offer both standard and custom TOQUARTZ® Quartz Cuvette with Two Optical Windows and PTFE Lid with fast delivery and consistent quality.



Product Overview

TOQUARTZ® quartz cuvettes with two optical windows and PTFE lids are precision-manufactured from high-purity fused quartz ($\geq 99.98\% \text{SiO}_2$) for demanding spectroscopic applications. These cuvettes offer exceptional optical transmission from 200nm to 2500nm, making them ideal for UV-Vis spectrophotometry, sample analysis, and research applications requiring precise optical measurements.



TOQUARTZ® QUARTZ CUVETTE WITH TWO OPTICAL WINDOWS AND PTFE LID



Key Features

- Superior Material: High-purity fused quartz with $\geq 99.995\%$ SiO_2 content
- Optical Excellence: Wide spectral transparency (200-2500nm) with $>80\%$ transmittance
- Precision Manufacturing: Two polished optical windows with exacting dimensional tolerances
- Secure Sealing: PTFE lid prevents contamination and sample evaporation
- Thermal Stability: Operating temperature up to 1100°C (without PTFE lid)
- Chemical Resistance: Excellent resistance to acids, bases, and solvents
- Multiple Configurations: Available in various path lengths from 20mm to 100mm



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Applications

- Pharmaceutical Analysis: Drug formulation, quality control, stability testing
- Academic Research: Material science, biochemistry, physical chemistry
- Environmental Testing: Water quality analysis, pollutant detection
- Clinical Diagnostics: Medical sample analysis, biological assays
- Food & Beverage: Quality control, compositional analysis
- Industrial QC: Process monitoring, product verification



TECHNICAL SPECIFICATIONS

Physical Properties

- Density: 2.20 g/cm³
- Fracture Modulus: ≥ 350 MPa
- Thermal Expansion: 5.5×10^{-7} /°C
- Thermal Conductivity: 1.4 W/m·K
- Max Operating Temperature: 1100°C

Chemical Properties

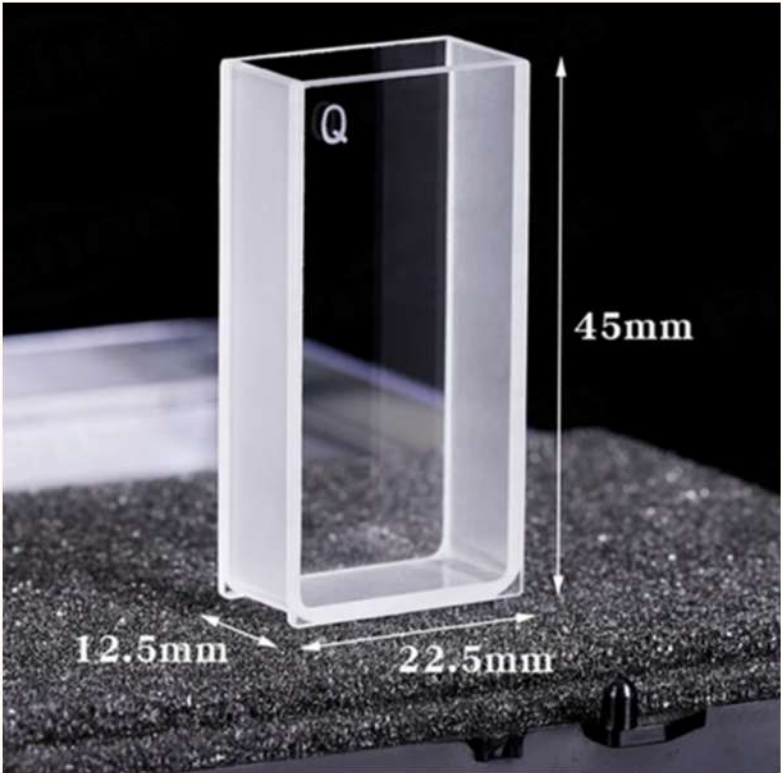
- SiO₂ Purity: $\geq 99.995\%$
- Acid Resistance: Excellent (except HF)
- Alkali Resistance: Good up to pH 12
- Solvent Resistance: Excellent
- Water Absorption: Nil

Optical Properties

- Transmittance: $> 80\%$ (200-2500nm)
- Refractive Index: 1.46 at 589.3nm
- Surface Quality: Polished optical windows
- UV Cutoff: ~ 180 -190nm
- Optical Windows: Two sides polished



SIZE CHART



7ml Quartz Cuvette Cell with 2 Optical Windows and Lid

Model	Description	Wavele ngth	Path Length	Volume	Transmittanc e	Outline Dimension
AT-BSM-052	7ml Quartz Cuvette Cell with 2 Optical Windows and Lid	200nm-2500nm	20mm	7ml	>80% (Paired Testing)	12.5x22.5x45 mm



SIZE CHART



10.5ml Quartz Cuvette Cell with 2 Optical Windows and Lid

Model	Description	Wavele ngth	Path Length	Volume	Transmittanc e	Outline Dimension
AT-BSM-073	10.5ml Quartz Cuvette Cell with 2 Optical Windows and Lid	200nm-2500nm	30mm	10.5ml	>80% (Paired Testing)	12.5*32.5*45 mm



SIZE CHART



14ml Fused Quartz Macro Cuvette

Model	Description	Wavele ngth	Path Length	Volume	Transmittanc e	Outline Dimension
AT-BSM-072	14ml Quartz Cuvette Cell with 2 Optical Windows and Lid	200nm-2500nm	40mm	14ml	>80% (Paired Testing)	12.5x42.5x45 mm



SIZE CHART



17.5ml Quartz Cuvette Cell with 2 Optical Windows and Lid

Model	Description	Wavele ngth	Path Length	Volume	Transmittanc e	Outline Dimension
AT-BSM-004	17.5ml Quartz Cuvette Cell with 2 Optical Windows and Lid	200nm-2500nm	50mm	17.5ml	>80% (Paired Testing)	12.5x42.5x45 mm



SIZE CHART



17.5ml Quartz Cuvette Cell with 2 Optical Windows and Lid

Model	Description	Wavele ngth	Path Length	Volume	Transmittanc e	Outline Dimension
AT-BSM-008	17.5ml Quartz Cuvette Cell with 2 Optical Windows and Lid	200nm-2500nm	50mm	17.5ml	>80% (Paired Testing)	12.5x52.5x45 mm



SIZE CHART



35ml Quartz Cuvette Cell with 2 Optical Windows and Lid

Model	Description	Wavele ngth	Path Length	Volume	Transmittanc e	Outline Dimension
AT-BSM-006	35ml Quartz Cuvette Cell with 2 Optical Windows and Lid	200nm-2500nm	100mm	35ml	>80% (Paired Testing)	12.5x102.5x45 mm



CUSTOMIZATION OPTIONS

Customization Services Our engineering team provides comprehensive customization options to meet your specific requirements:

- Custom path lengths
- Non-standard dimensions to fit specific instruments
- Alternative lid materials (PE, glass, quartz)
- Graduated markings and custom identification



CARE AND MAINTENANCE

For maximum performance and longevity:

- Clean immediately after use
- Handle by non-optical sides only
- Use appropriate solvents for cleaning
- Avoid hydrofluoric acid (HF)
- Store in dust-free environment
- Inspect regularly for scratches or damage



QUALITY ASSURANCE

Each TOQUARTZ Quartz Cuvette undergoes rigorous quality control testing:

- **Dimensional Verification:** Precision measurement of all critical dimensions
- **Optical Transmission Testing:** Verification of spectral transmission properties
- **Surface Quality Inspection:** Microscopic examination of polished surfaces
- **Paired Performance Testing:** Validation of optical consistency

Contact Information

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TOQUARTZ® - Precision Quartz Solutions for Industry and Research

For technical specifications, custom requirements, or pricing information, please contact our sales team.