



# TOQUARTZ

## Tech Specifications

# TOQUARTZ®

## Standard Quartz Glass

## UV Cuvette

## Round Bottom with Lid

## Product Catalog

Integrated Engineering & Agile Production  
**for Demanded Specifications**



# TOQUARTZ® STANDARD QUARTZ GLASS UV CUVETTE ROUND BOTTOM WITH 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® TOQUARTZ® Standard Quartz Glass UV Cuvette Round Bottom with Lid with fast delivery and consistent quality.



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## Product Overview



**TOQUARTZ® Standard Quartz Glass Cuvette features a round bottom design with secure lid for precise UV-VIS spectroscopy applications. Manufactured from high-purity quartz (99.99% SiO<sub>2</sub>), these cuvettes provide excellent optical transmission in the 200-2500nm wavelength range with transmittance >80% for accurate analytical results.**

# TOQUARTZ® STANDARD QUARTZ GLASS UV CUVETTE ROUND BOTTOM WITH LID



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## Key Features

### Superior Optical Properties

- Wide spectral range (200-2500nm)
- High transmittance (>80% across UV range)
- No interfering absorption peaks
- Optical window parallelism  $\leq 3$  arc minutes

### Precision Design

- Round bottom design minimizes bubbles
- Secure lid prevents contamination
- Standard 10mm path length
- Manufactured to  $\pm 0.1$ mm tolerance

### Material Excellence

- 99.99% SiO<sub>2</sub> high-purity quartz
- Excellent chemical resistance
- Low thermal expansion coefficient
- High temperature stability

# TOQUARTZ® STANDARD QUARTZ GLASS UV CUVETTE ROUND BOTTOM WITH LID



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## Applications

- Analytical chemistry and biochemistry research
- DNA/RNA quantification and protein analysis
- Environmental testing and water quality analysis
- Pharmaceutical quality control
- Academic and industrial research laboratories



# TECHNICAL SPECIFICATIONS

Category	Parameter	Specification / Value	Notes / Tolerance
General	Model Number	AT-BSM-010 / AT-BSM-019	Standard models with identical dimensions
Material	Quartz Grade	Synthetic Fused Silica (≥99.99% SiO <sub>2</sub> )	High-purity UV-grade quartz
Optical	Wavelength Transmission Range	200 – 2500 nm	Verified by spectrophotometric testing
	UV Transmittance	≥ 80% @ 200–350 nm	Paired testing, matched cuvettes
	Absorption Peaks	None in 200–2500 nm range	No intrinsic absorption
	Refractive Index (nD @ 589 nm)	1.4585	ASTM standard for fused silica
	Surface Finish	Optical polish on windows	Ra < 10 nm
	Light Path Accuracy	±0.1 mm	Ensures consistent absorbance readings



# TECHNICAL SPECIFICATIONS

Category	Parameter	Specification / Value	Notes / Tolerance
Chemical	Acid Resistance	Excellent (except HF)	Stable in HCl, HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , etc.
	Alkali Resistance	Good (except hot concentrated NaOH/KOH)	Avoid prolonged exposure
	Organic Solvent Compatibility	Excellent	Compatible with alcohols, ketones, DMSO
	Hydrofluoric Acid Resistance	Not resistant	HF etches quartz
	Solvent Absorption	None	Non-porous surface
	Density	2.2 g/cm <sup>3</sup>	ISO 7875-1
	Thermal Expansion Coefficient	5.5 × 10 <sup>-7</sup> /K (20–300°C)	Very low, ideal for thermal stability
	Softening Point	~1680°C	High thermal resistance



# TECHNICAL SPECIFICATIONS

Category	Parameter	Specification / Value	Notes / Tolerance
Physical	Density	2.2 g/cm <sup>3</sup>	ISO 7875-1
	Thermal Expansion Coefficient	5.5 × 10 <sup>-7</sup> /K (20–300°C)	Very low, ideal for thermal stability
	Softening Point	~1680°C	High thermal resistance
	Working Temperature (Max)	1100°C (continuous), 1200°C (short-term)	Not applicable for cuvette use
	Thermal Shock Resistance	Excellent	Can withstand rapid temperature changes
	Electrical Resistivity	10 <sup>16</sup> Ω·cm (at 20°C)	High dielectric strength
	Surface Hardness	Mohs 5.5–6	Scratch-resistant
	Softening Point	~1680°C	High thermal resistance



# SIZE CHART



Standard Quartz Glass Cuvette UV Corrosion Resistant Cell with Lid without Glue

Model	Description	Wavele ngth	Path Length	Volume	Transmittanc e	Outline Dimension
AT-BSM-010	Standard Quartz Glass Cuvette UV Corrosion Resistant Cell with Lid without Glue	200nm-2500nm	10mm	3.5ml	>80% (Paired Testing)	12.5x12.5x45 mm



# SIZE CHART



Standard Quartz Cuvette UV Sample Cell Round Bottom with Lid

Model	Description	Wavele ngth	Path Length	Volume	Transmittanc e	Outline Dimension
AT-BSM-019	Standard Quartz Cuvette UV Sample Cell Round Bottom with Lid	200nm-2500nm	10mm	3.5ml	>80% (Paired Testing)	12.5x12.5x45 mm



## CUSTOMIZATION OPTIONS

**TOQUARTZ® offers specialized customization services to meet unique application requirements:**

- Alternative path lengths
- Modified sample volumes
- Special lid configurations
- Flow-through adaptations
- Multi-window designs
- Black walls for fluorescence



# QUALITY ASSURANCE

Each TOQUARTZ Standard Quartz UV 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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*For technical specifications, custom requirements, or pricing information, please contact our sales team.*