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Tech Specifications

TOQUARTZ® Micro Quartz UV Cuvette Cell with Stopper Product Catalog

Integrated Engineering & Agile Production
for Demanded Specifications

TOQUARTZ® MICRO QUARTZ UV CUVETTE CELL WITH STOPPER

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® mirco quartz UV cuvette with fast delivery and consistent quality.

Product Overview

TOQUARTZ® Micro Quartz UV Cuvette Cell with Stopper (Model AT-BSM-042) is a precision-engineered optical cell designed for accurate spectrophotometric analysis across the UV-Visible-NIR spectrum. Manufactured from high-purity quartz (≥99.98% SiO_2), this micro cuvette offers superior optical performance, chemical resistance, and thermal stability for demanding laboratory applications.

TOQUARTZ® MICRO QUARTZ UV CUVETTE CELL WITH STOPPER

Key Features

- Wide Spectral Range: 200-2500nm wavelength coverage for comprehensive UV-Vis-NIR analysis
- Precision Path Length: 10mm optical path with ±0.1mm tolerance for accurate quantitative measurements
- Sample Conservation: 700µl volume capacity, ideal for precious sample analysis
- Thermal Stability: Maintains dimensional integrity up to 100°C
- Chemical Resistance: Withstands exposure to most acids, bases, and organic solvents
- Secure Sample Protection: Integrated stopper prevents evaporation and contamination
- Compatibility: Standard 12.5×12.5×45mm dimensions fit most spectrophotometers

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Applications

- Biological Research: DNA/RNA quantification, protein analysis, enzyme kinetics
- Pharmaceutical Development: Drug purity testing, dissolution studies
- Environmental Analysis: Water quality testing, pollutant detection
- Food & Beverage: Color measurement, additive analysis
- Chemical Research: Reaction monitoring, concentration determination
- Academic & Educational: Teaching laboratories, student research projects

TECHNICAL SPECIFICATIONS

Ⅰ. Physical Properties

Property	Value
Fracture Modulus	350MPa+
Thermal Expansion Coefficient	5.5×10^{-7} /°C
Thermal Conductivity	120–160 W/m·K
Dimensional Tolerance	±0.1mm
Surface Finish	Polished optical windows

TECHNICAL SPECIFICATIONS

II . Chemical Properties

Property	Value
Material Purity	⩾99.995% SiO_2
Chemical Resistance	Resistant to acids, bases, organic solvents
Solvent Compatibility	Compatible with most common laboratory solvents

TECHNICAL SPECIFICATIONS

III. Optical Properties

Property	Value
Transmittance at 190nm	>85%
Wavelength Range	200-2500nm (Full range operation)
Absorbance Range	0-3.0 Abs (instrument dependent)
Absorption Peaks	None within operating range

SIZE CHART

700μl Micro Quartz UV Cuvette Cell with Stopper

Model	Description	Wavelength	Path Length	Volume	Thermostability	Outline Dimension
AT-BSM-042	700μl Micro Quartz UV Cuvette Cell with Stopper	200nm-2500nm	10mm	700μl	100°C	12.5x12.5x45 mm

CUSTOMIZATION OPTIONS

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

- Custom path lengths
- Modified dimensions and volumes
- Specialized stopper designs
- Surface treatments (black walls, frosting, etc.)
- Flow-through adaptations

USAGE GUIDELINES

Proper Handling

- Handle by frosted/ribbed sides only
- Avoid touching optical windows
- Clean immediately after use
- Store in original container

Cleaning Procedure

1. Rinse with deionized water immediately after use
2. For persistent residues, use mild laboratory detergent
3. Rinse thoroughly with deionized water
4. Air dry or use filtered compressed air

Storage Recommendations

- Store in dust-free environment
- Keep at room temperature
- Avoid exposure to corrosive chemicals
- For long-term storage, leave stopper slightly loose

QUALITY ASSURANCE

Each TOQUARTZ 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.