TOQUARTZ

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Tech Specifications

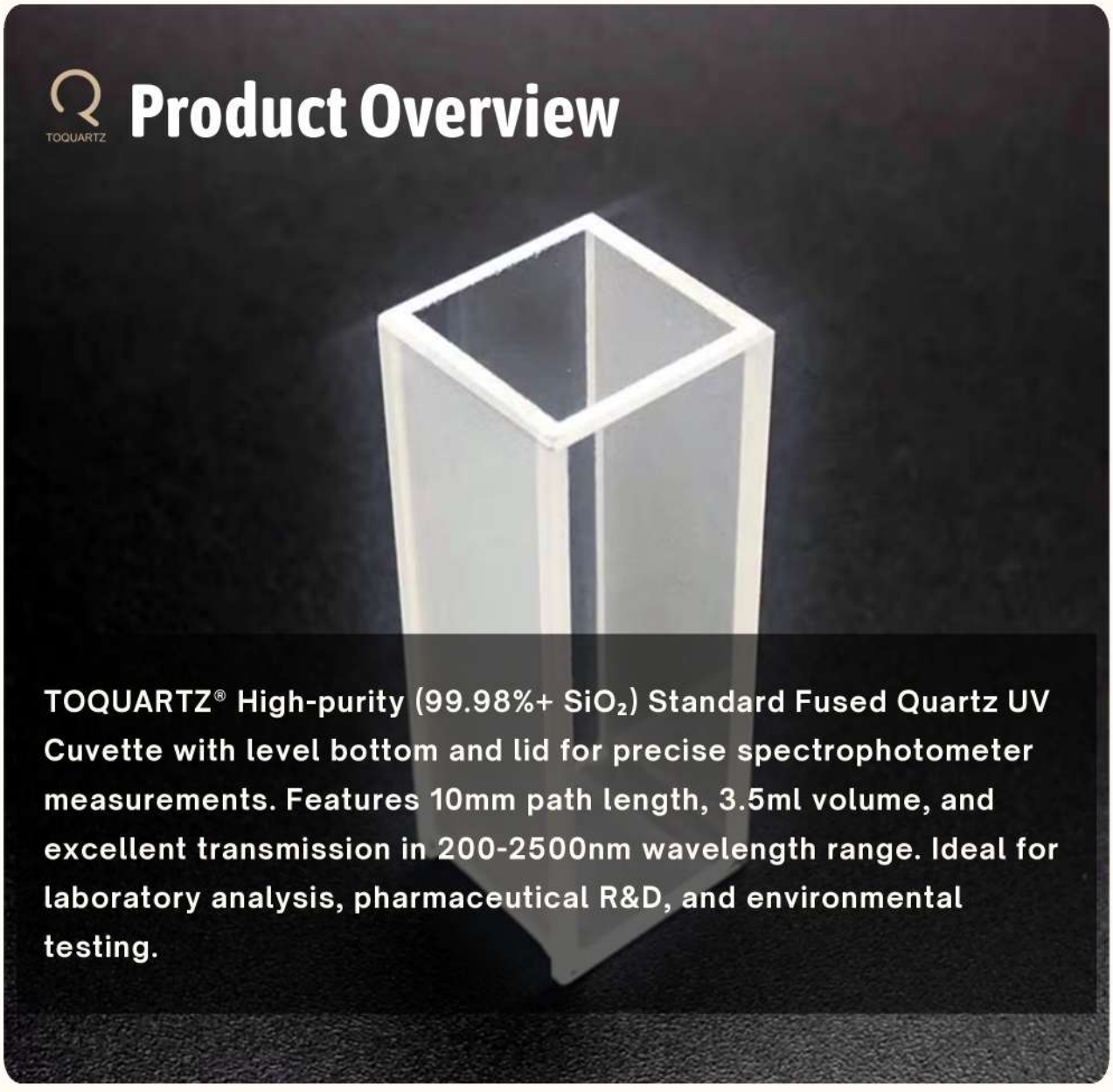
TOQUARTZ®
UV Standard
Fused Quartz Cuvette Cell
Level Bottom with Lid
Product Catalog

Integrated Engineering & Agile Production

for Demanded Specifications

TOQUARTZ® UV STANDARD FUSED QUARTZ CUVETTE CELL LEVEL 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® UV Standard Fused Quartz Cuvette Cell Level Bottom with Lid with fast delivery and consistent quality.



TOQUARTZ® UV STANDARD FUSED QUARTZ CUVETTE CELL LEVEL BOTTOM WITH LID

Key Features

- Wide Spectral Range: Excellent transmission from 200nm to 2500nm, with no absorption peaks
- High Purity Material: 99.995% SiO_2 content ensures minimal contaminants
- Precision Manufacturing: ±0.1mm tolerance on critical dimensions
- Level Bottom Design: Ensures stable placement and consistent optical path
- Chemical Resistance: Highly resistant to most acids, bases, and solvents
- Thermal Stability: Low thermal expansion coefficient (5.5×10^{-7}/K)
- Secure Lid: Prevents sample evaporation and contamination

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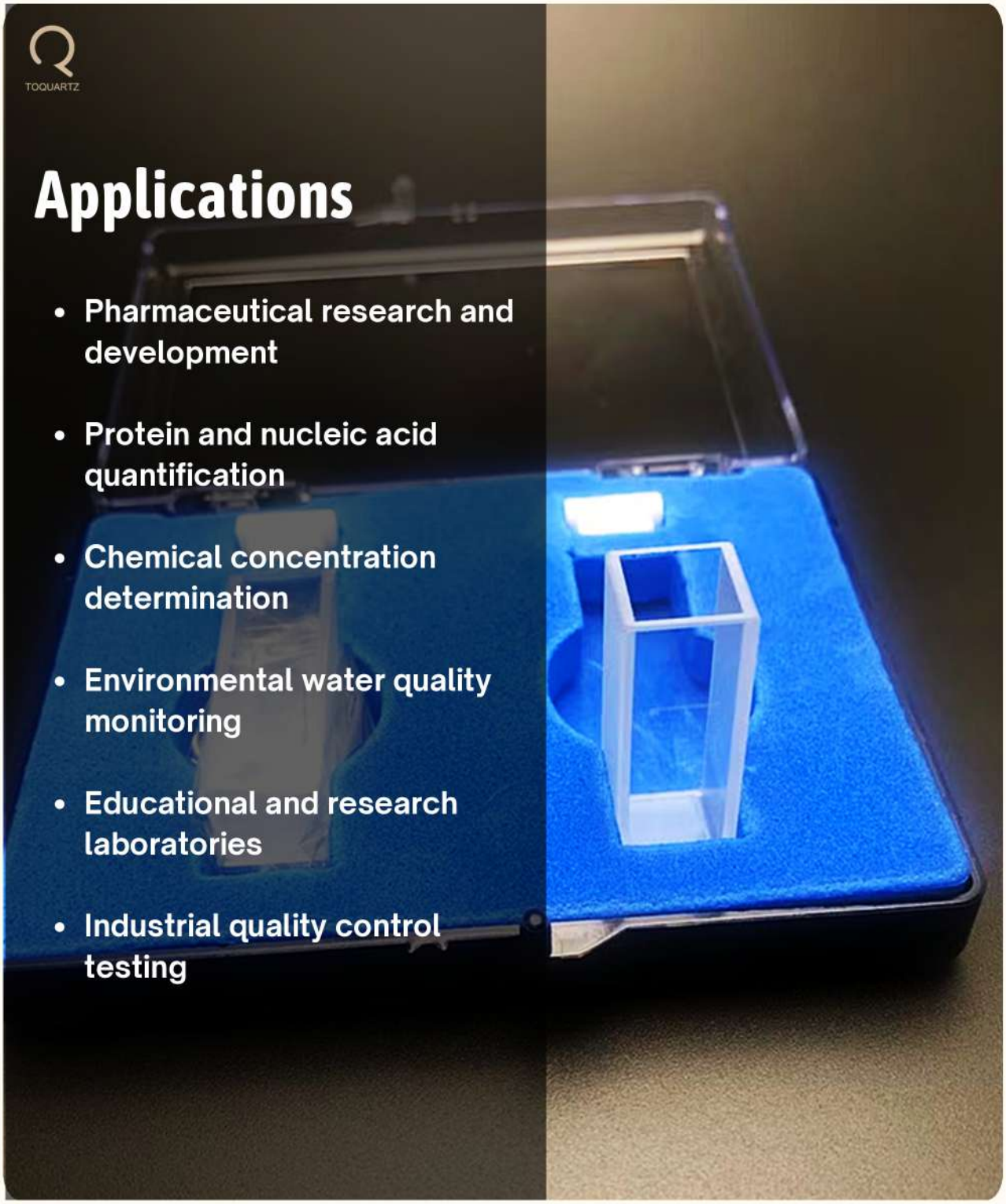

TECHNICAL SPECIFICATIONS

Ⅰ. Physical Properties

Parameter	Value / Range	Unit / Notes
Material	Fused Quartz (≥99.995% SiO_2)	High-purity synthetic silica
Density	2.2	g/cm^3
Hardness (Mohs scale)	5.5–6	—
Young's Modulus	72	GPa
Poisson's Ratio	0.17	—
Compressive Strength	≥1100	MPa
Flexural Strength	≥50	MPa

TECHNICAL SPECIFICATIONS

Ⅰ. Physical Properties

Parameter	Value / Range	Unit / Notes
Fracture Toughness	0.8–0.9	MPa·m½
Thermal Conductivity	1.3	W/m·K (at 20°C)
Thermal Expansion Coefficient	5.5×10^{-7}	/K (20–300°C)
Maximum Operating Temperature	1100	°C (continuous use)
Softening Point	1665	°C
Annealing Point	1215	°C
Strain Point	1120	°C

TECHNICAL SPECIFICATIONS

Ⅰ. Physical Properties

Parameter	Value / Range	Unit / Notes
Path Length	10.00 ± 0.10	mm
External Dimensions	12.5 × 12.5 × 45	mm (W × D × H)
Internal Volume	3.5	ml
Wall Thickness Tolerance	±0.10	mm
Parallelism	⩽0.10	mm
Lid Type	Flat lid or PTFE screw cap	Optional

TECHNICAL SPECIFICATIONS

II . Chemical Properties

Parameter	Value / Compatibility	Notes
Acid Resistance	Excellent	Except HF and hot H_3PO_4
Alkali Resistance	Good	Avoid prolonged exposure to strong bases
Organic Solvent Resistance	Excellent	Compatible with alcohols, ketones, DMSO, etc.
Water Absorption	0	%
Surface Reactivity	Very Low	Inert to most chemical reagents
Autoclavable	Yes	With lid removed if plastic
Cleaning Compatibility	Compatible with dilute acids, detergents, ethanol	Avoid abrasive materials

TECHNICAL SPECIFICATIONS

III. Optical Properties

Parameter	Value / Range	Unit / Notes
Wavelength Transmission Range	200 – 2500	nm
UV Cutoff	175 – 180	nm
Transmittance @ 200nm	⩾80%	Paired testing
Transmittance @ 220–250nm	⩾85%	Typical
Transmittance @ 350–800nm	⩾90%	Typical

TECHNICAL SPECIFICATIONS

III. Optical Properties

Parameter	Value / Range	Unit / Notes
Refractive Index @ 546nm	1.458	—
Birefringence	None	Isotropic material
Absorbance Range (Recommended)	0 – 3.0	A (Absorbance Units)
Surface Quality	Scratch-free, bubble-free	Optical polish on 2 sides
Optical Windows	2 sides polished, 2 sides frosted	Standard for UV-Vis cuvettes
Fluorescence Background	Negligible	Suitable for fluorescence spectroscopy

SIZE CHART

3.5ml UV Standard Quartz Cuvette Cell Level Bottom with Lid

Model	Description	Wavelength	Path Length	Volume	Transmittance	Outline Dimension
AT-BSM-056	3.5ml UV Standard Quartz Cuvette Cell Level 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:

- Custom path lengths
- Modified internal volumes
- Special optical window configurations
- Flow-through ports and connections
- Black-walled designs for fluorescence

USAGE RECOMMENDATIONS

- Handle by non-optical surfaces only
- Fill to approximately 2/3 capacity (about 3.0ml)
- Position with optical windows perpendicular to light path
- Clean immediately after use with appropriate solvents
- Store in original packaging or dedicated containers

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.