



TOQUARTZ

Tech Specifications

Quartz Plate & Disc

Integrated Engineering & Agile Production
for Demanded Specifications



TOQUARTZ® QUARTZ PETRI DISH

High-Purity Quartz Petri Dish

Product Overview



TOQUARTZ® quartz petri dishes are manufactured from ultra-high purity fused silica (99.99% SiO₂), offering exceptional performance characteristics for demanding laboratory and research applications.

These premium laboratory vessels deliver superior thermal stability, chemical resistance, and optical clarity that standard glass or plastic alternatives cannot match.

QUARTZ PETRI DISH

Key Features

- **High Temperature Resistance:**

Softening point of 1730°C with long-term use capability at 1200°C

- **Superior Chemical Resistance:**

Inert to virtually all chemicals except hydrofluoric acid

- **Excellent Thermal Stability:**

Extremely low thermal expansion coefficient allows for rapid temperature changes

- **Superior Optical Properties:**

Exceptional transparency across UV to IR spectrum (visible light >93%, UV >80%)

- **Excellent Electrical Insulation:**

Electrical resistance 10,000x greater than ordinary glass

- **Ultra-High Purity:**

SiO₂ content exceeding 99.99% for minimal contamination

CLEAR QUARTZ GLASS PLATE

Applications

- **Microbiology & Cell Culture:**

High-temperature protocols, sterile environments, autoclave compatibility

- **Chemical Analysis:**

Corrosive chemical handling, trace element analysis, high-temperature reactions

- **Optical & Spectroscopic Research:**

UV fluorescence studies, spectroscopic analysis, advanced imaging

- **Materials Science:**

High-temperature sample preparation, controlled atmosphere reactions

- **Pharmaceutical Research:**

Drug screening, crystallization studies, stability testing



MATERIAL PROPERTIES



- SiO₂ Content: $\geq 99.99\%$
- Maximum Working Temperature: 1200°C (long-term), 1450°C (short-term)
- Thermal Expansion Coefficient: $5.5 \times 10^{-7}/\text{K}$
- Visible Light Transmission: $\geq 93\%$
- UV Transmission: $\geq 80\%$
- Surface Roughness: $R_a \leq 0.2 \mu\text{m}$

CUSTOMIZATION OPTIONS

- **Custom Dimensions:** Available from 25mm to 300mm outer diameter with precision tolerances
- **Special Features:** Grid markings, positioning notches, alignment markers, specialized edge treatments
- **Surface Treatments:** Fire polishing, precision grinding, surface etching for specific properties
- **Matching Lids:** Available for all sizes with optional specialized features



SIZE CHART

Model	Bottom		Lid		Wall Thickness(mm)	SiO ₂ 's Purity (%)
	Outer Dia. (mm)	Height (mm)	Outer Dia. (mm)	Height (mm)		
AT-SYM-001	25	21	25	19	2	99.99%
AT-SYM-002	30	21	35	19	2	99.99%
AT-SYM-003	35	21	40	19	2	99.99%
AT-SYM-004	40	21	45	19	2	99.99%
AT-SYM-005	45	21	50	19	2	99.99%



SIZE CHART

Model	Bottom		Lid		Wall Thickness(mm)	SiO ₂ 's Purity (%)
	Outer Dia. (mm)	Height (mm)	Outer Dia. (mm)	Height (mm)		
AT-SYM-006	50	21	55	19	2	99.99%
AT-SYM-007	55	21	60	19	2	99.99%
AT-SYM-008	60	21	65	19	2	99.99%
AT-SYM-009	65	21	70	19	2	99.99%
AT-SYM-010	70	21	75	19	2	99.99%



SIZE CHART

Model	Bottom		Lid		Wall Thickness(mm)	SiO ₂ 's Purity (%)
	Outer Dia. (mm)	Height (mm)	Outer Dia. (mm)	Height (mm)		
AT-SYM-011	75	21	82	19	2	99.99%
AT-SYM-012	80	21	87	19	2	99.99%
AT-SYM-013	85	21	92	19	2	99.99%
AT-SYM-014	90	21	98	19	2	99.99%
AT-SYM-015	95	21	103	19	2	99.99%



SIZE CHART

Model	Bottom		Lid		Wall Thickness(mm)	SiO ₂ 's Purity (%)
	Outer Dia. (mm)	Height (mm)	Outer Dia. (mm)	Height (mm)		
AT-SYM-016	100	21	108	19	2	99.99%
AT-SYM-017	110	21	118	19	2	99.99%
AT-SYM-018	115	21	123	19	2	99.99%
AT-SYM-019	120	21	130	19	3	99.99%
AT-SYM-020	125	21	135	19	3	99.99%



SIZE CHART

Model	Bottom		Lid		Wall Thickness(mm)	SiO ₂ 's Purity (%)
	Outer Dia. (mm)	Height (mm)	Outer Dia. (mm)	Height (mm)		
AT-SYM-021	130	21	140	19	3	99.99%
AT-SYM-022	135	21	145	19	3	99.99%
AT-SYM-023	140	21	150	19	3	99.99%
AT-SYM-024	150	21	160	19	3	99.99%
AT-SYM-025	160	21	170	19	3	99.99%



SIZE CHART

Model	Bottom		Lid		Wall Thickness(mm)	SiO ₂ 's Purity (%)
	Outer Dia. (mm)	Height (mm)	Outer Dia. (mm)	Height (mm)		
AT-SYM-026	180	21	195	19	4	99.99%
AT-SYM-027	190	21	205	19	4	99.99%
AT-SYM-028	200	21	215	19	4	99.99%
AT-SYM-029	250	21	265	19	4	99.99%
AT-SYM-030	300	21	315	19	4	99.99%



QUALITY ASSURANCE

All TOQUARTZ® products undergo rigorous quality control including:

- Dimensional verification to ensure $\pm 0.1\text{mm}$ tolerance
- Optical inspection for material defects and surface quality
- Material composition verification
- Thermal stability testing

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.