



TOQUARTZ
Tech Specifications

TOQUARTZ® Quartz Ingot Product Catalog

Integrated Engineering & Agile Production
for Demanded Specifications



TOQUARTZ® QUARTZ INGOT

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 Ingot with fast delivery and consistent quality.



Product Overview

TOQUARTZ® high purity quartz ingots feature 99.995% SiO₂ purity with no impurities or black spots. These premium quartz ingots deliver exceptional heat resistance up to 1200°C, excellent thermal shock resistance, low thermal expansion coefficient, and superior light transmission properties.

TOQUARTZ® QUARTZ FLANGES



Key Features

- **High Purity:** 99.995% SiO₂ content
- **Excellent Thermal Properties:** Maximum operating temperature 1200°C
- **Superior Thermal Conductivity:** 120-160 W/m·K
- **Low Thermal Expansion:** $5.5 \times 10^{-7}/K$
- **Exceptional Chemical Resistance:** Resistant to acids, alkalis, and molten salts
- **High Mechanical Strength:** Fracture modulus up to 350MPa
- **Optical Clarity:** High transmission from UV to IR spectrum

TOQUARTZ® QUARTZ FLANGES



Applications

- **Semiconductor Manufacturing:** Components for wafer processing, diffusion furnaces
- **Solar Cell Production:** Silicon crystal growth crucibles, photovoltaic components
- **Optical Industry:** High-precision lenses, windows, and specialty glass components
- **Laboratory Equipment:** High-temperature reaction vessels and analytical instruments



CHEMICAL COMPOSITION ANALYSIS (PPM)

| Element | Value | Element | Value |
|----------------|-------|----------------|-------|
| Al (Aluminum) | 20 | Fe (Iron) | 0.4 |
| Cu (Copper) | 0.01 | Na (Sodium) | 1.5 |
| Mg (Magnesium) | 0.05 | P (Phosphorus) | 0.06 |

| Element | Value | Element | Value |
|---------------|-------|---------------|---------|
| K (Potassium) | 1 | Li (Lithium) | 1.4 |
| B (Boron) | 0.2 | Ca (Calcium) | 0.5 |
| Ti (Titanium) | 1.2 | OH (Hydroxyl) | 120-260 |



SIZE CHART

| Model | Description | Dimensions |
|--------------|-------------------------------------|--------------------------|
| AT-SIO-T1001 | Transparent Round Ingot | Ø150 × H600mm |
| AT-SIO-T1002 | Transparent Round Ingot | Ø650 × H200mm |
| AT-SIO-T1003 | Transparent Square Ingot | 450 × 450 × H200mm |
| AT-SIO-T1004 | Transparent Square Plate (Polished) | 10 × 10 × ≥0.5mm |
| AT-SIO-T1005 | Transparent Square Plate (Polished) | 600 × 600 × 3-5mm |
| AT-SIO-T1006 | Transparent Square Plate (Rough) | Max: 400 × 3000 × 5-10mm |
| AT-SIO-T1007 | Transparent Round Plate | Ø2 × ≥0.5mm |
| AT-SIO-T1008 | Transparent Round Plate | Ø650 × 3-5mm |



CUSTOMIZATION OPTIONS

TOQUARTZ offers comprehensive customization services for quartz ingots:

- Custom Dimensions: Available for specific application requirements
- Surface Finish Options: Polished, ground, or as-cast surfaces
- Specialized Material Properties: Optimized for specific industry applications
- Custom Shapes: Round, square, rectangular, or specialized geometric configurations



STORAGE RECOMMENDATIONS

- Store in clean, dry conditions at stable room temperature (15-25°C)
- Keep in original packaging until ready for use
- Avoid direct contact with materials that could cause surface contamination



ABOUT TOQUARTZ®

TOQUARTZ® is a specialized manufacturer of high-quality quartz glass products for industrial, laboratory, and optical applications. Our factory-direct approach eliminates intermediaries, providing cost-effective solutions with responsive technical support. We welcome small batch orders and offer 24-hour shipping for standard items.

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.