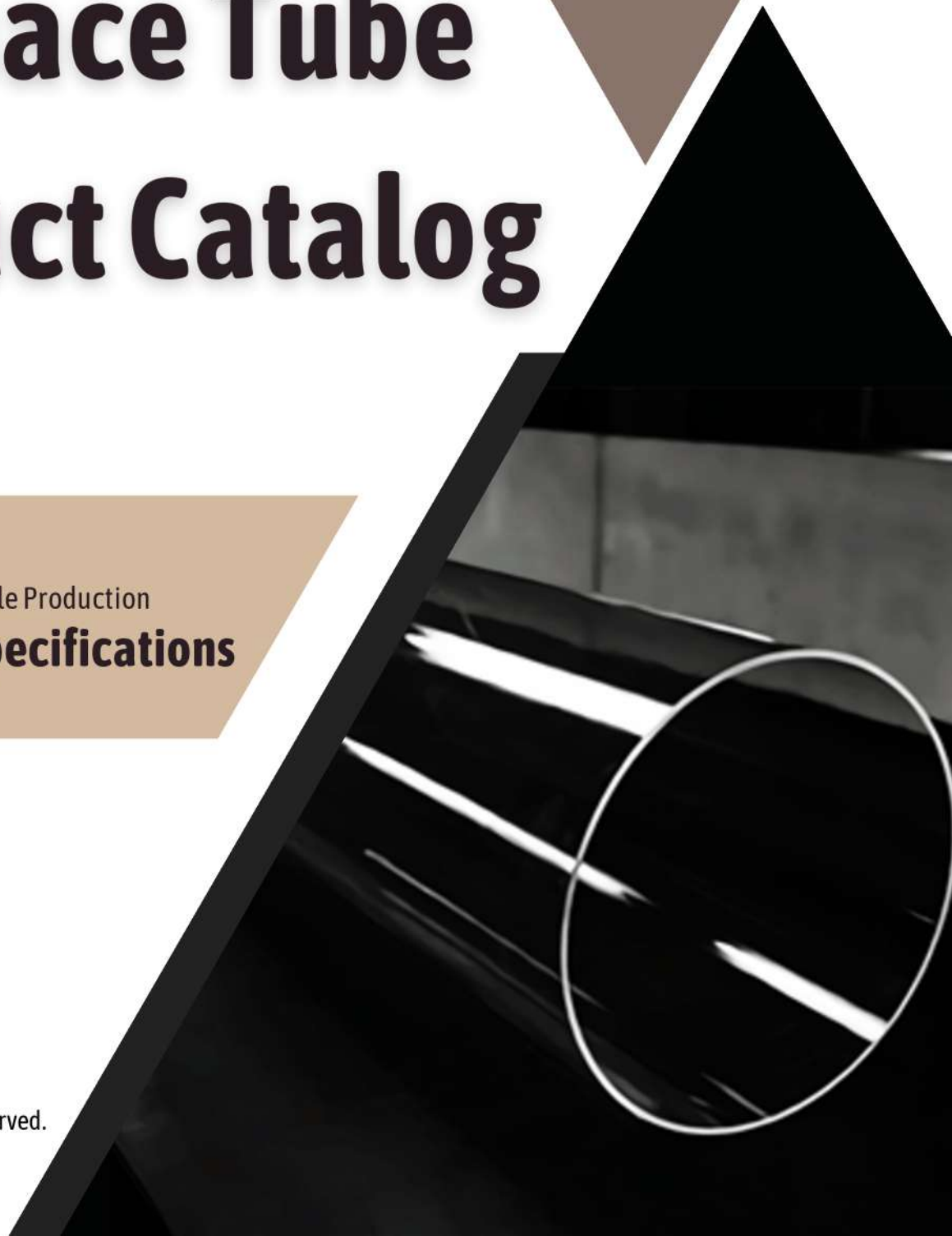




TOQUARTZ®  
Tech Specifications

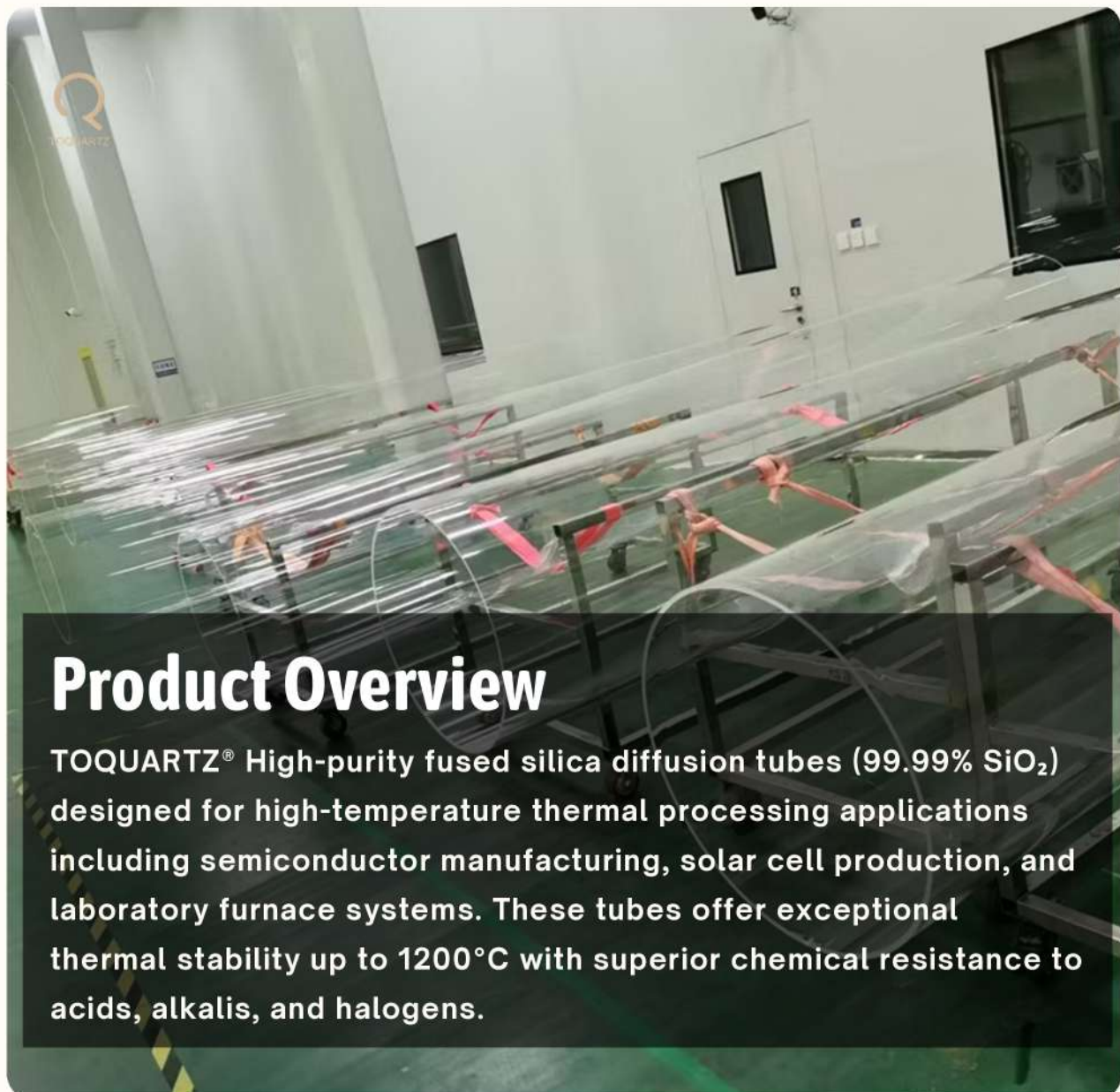
# Quartz Diffusion Furnace Tube Product Catalog

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



# TOQUARTZ® QUARTZ DIFFUSION FURNACE TUBE

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 Diffusion Furnace Tube with fast delivery and consistent quality.





# TOQUARTZ® QUARTZ DIFFUSION FURNACE TUBE



## Key Features

- **Ultra-High Purity:** 99.99% SiO<sub>2</sub> content minimizes contamination in critical processes
- **Exceptional Thermal Stability:** Withstands rapid temperature changes with minimal deformation
- **Superior Chemical Resistance:** Maintains integrity in aggressive chemical environments
- **Precision Dimensional Control:** Standard tolerance of  $\pm 0.2\text{mm}$  with enhanced precision available
- **Excellent Optical Transparency:** Allows visual monitoring of internal processes
- **High Electrical Insulation:** Prevents current leakage in sensitive manufacturing processes

# TOQUARTZ® QUARTZ DIFFUSION FURNACE TUBE



## Applications

- Semiconductor Diffusion Processes
- Solar Cell Manufacturing
- Thermal Processing Equipment
- Laboratory Furnaces
- High-Temperature Annealing
- CVD Processing



# TECHNICAL SPECIFICATIONS

## Physical Properties

- **Density:** 2.2 g/cm<sup>3</sup>
- **Flexure Strength:** 48 MPa
- **Elastic Modulus:** 72 GPa
- **Poisson's Ratio:** 0.14-0.17
- **Compressive Strength:** 1100 MPa
- **Bending Strength:** 67 MPa
- **Moh's Hardness:** 5.5-6.5

## Thermal & Optical Properties

- **Maximum Working Temperature (long-term):** 1100°C
- **Maximum Working Temperature (short-term):** 1350°C
- **Thermal Conductivity:** 1.4 W/m·K
- **Thermal Expansion Coefficient:**  $5.5 \times 10^{-7}$  /°C
- **Refractive Index:** 1.4585
- **Specific Resistance:**  $7 \times 10^7$  Ω·cm
- **Transmission (280-780nm):** ≥93% (1mm thickness)





# CUSTOMIZATION OPTIONS

- **End Finishing:** Flanged ends, ground joints, fire-polished ends, beaded ends, sealed ends with inlets
- **Structural Modifications:** Multiple gas inlets, thermocouple ports, internal baffles, multi-zone configurations
- **Surface Treatments:** Ground/frosted surfaces, high-polish internal surfaces, opaque sections



# 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.*