

# TOQUARTZ Tech Specifications

# TOQUARTZ® Quartz Wafer Boat Product Catalog

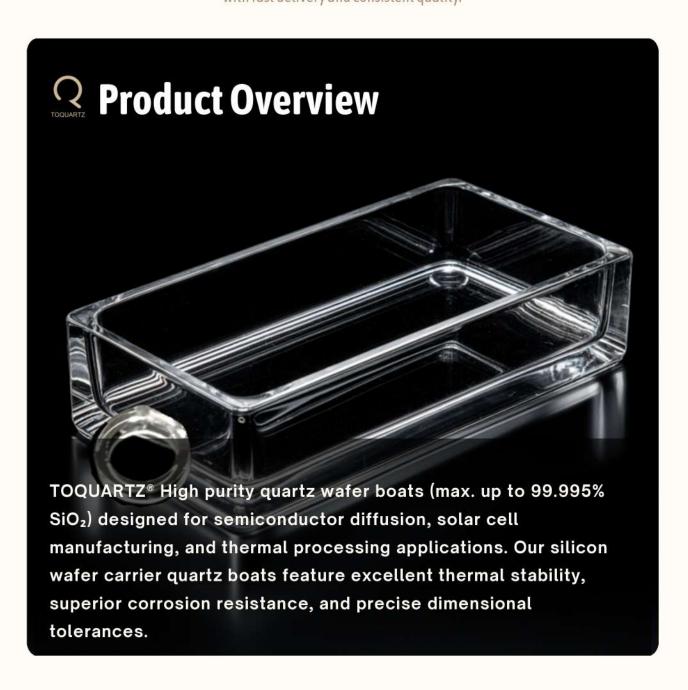
Integrated Engineering & Agile Production

for Demanded Specifications



#### TOQUARTZ® QUARTZ WAFER BOAT

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 Wafer Boat with fast delivery and consistent quality.



#### TOQUARTZ® QUARTZ WAFER BOAT

#### **Key Features**

- Material Excellence: 99.995% SiO<sub>2</sub> content ensures minimal contamination in critical processes
- Superior Strength: Flexural strength up to 350 MPa withstands handling stresses
- Chemical Stability: Resistant to acids, alkalis, molten salts, and fluorinated gases
- High Temperature Stability: Maintains structural integrity at 1200°C for continuous operation
- Low Thermal Expansion: Coefficient of 5.5×10<sup>-7</sup>/°C minimizes warping during thermal cycling
- Thermal Conductivity: 120-160 W/m·K for efficient heat transfer during processing
- Dimensional Accuracy: Tolerance of ±0.1mm ensures consistent wafer positioning
- Surface Finish Options: Polished, ground, or as-fired surfaces available
- Slot Precision: Accurately machined slots with consistent spacing and depth

#### TOQUARTZ® QUARTZ WAFER BOAT





# TECHNICAL SPECIFICATIONS

#### I Physical Properties

Property	Value	Unit
Density	2.2	g/cm3
Flexural 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	-



## **TECHNICAL SPECIFICATIONS**

#### II Thermal Properties

Property	Value	Unit
Maximum Working Temperature (long-term)	1100	°C
Maximum Working Temperature (short-term)	1350	°C
Thermal Conductivity	1.4	W/m·K
Thermal Expansion Coefficient	5.5×10 <sup>-7</sup>	/°C



### TECHNICAL SPECIFICATIONS

#### III Optical & Electrical Properties

Property	Value	Unit
Refractive Index	1.4585	-
Specific Resistance	7×10 <sup>7</sup>	Ω·cm



#### **CUSTOMIZATION OPTIONS**

- Custom length, width, and height specifications
- Specialized wall thickness for thermal requirements
- Custom slot count from 5 to 200+ positions
- Variable slot spacing for different wafer thicknesses
- Specialized slot geometries for edge protection
- Surface treatments (polished, ground, as-fired)

#### **USAGE GUIDELINES**

- Handle with clean gloves to prevent contamination
- · Avoid impact or dropping to prevent chipping
- Do not exceed maximum operating temperature (1100°C long-term)
- Avoid rapid thermal cycling; use ramp rates of 5-8°C/minute
- Keep away from alkaline compounds at high temperatures
- Clean using appropriate methods based on process requirements



# ABOUTTOQUARTZ®

TOQUARTZ® is a specialized manufacturer of high-quality quartz glass products for industrial, laboratory, and optical applications. Our factorydirect 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.