

High Purity Transparent Quartz Square Boat Crucible High Temperature Corrosion Resistant Glass Tank

Item Number: KT-SYZ



Introduction

Designed for demanding laboratory environments, this high-purity transparent quartz square boat crucible offers exceptional corrosion resistance and thermal stability up to 1200 degrees Celsius, ensuring contamination-free material processing and ultra-reliable performance in advanced high-temperature tube furnace application setups worldwide.

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Application	Description	Key Benefit
Semiconductor Wafer Treatment	Supporting and holding silicon wafers during high-temperature annealing, oxidation, and diffusion processes.	Prevents trace element migration and cross-contamination in cleanroom environments.
Powder Material Calcination	Holding ceramic powders, catalyst precursors, and battery materials during high-temperature calcination and sintering.	Chemical inertness prevents reactions between the powder sample and the crucible walls.
High-Temperature Metallurgy	Melting small quantities of non-ferrous metals and alloys to analyze structural changes and phase diagrams.	High melting point and thermal stability ensure vessel integrity throughout the melting process.
Gravimetric Sample Analysis	Acting as a weight-stable container for testing weight loss and oxidation mass gain of materials at high temperatures.	Negligible weight change of the vessel ensures precise measurement of the sample mass changes.
Chemical Vapor Deposition (CVD)	Serving as the substrate carrier inside tube furnaces for synthetic film deposition and nanomaterial growth.	Uniform flat surface and high thermal conductivity support consistent deposition rates.
Acid Digestion and Evaporation	Evaporating strong acid solutions or digesting solid samples at high temperatures for chemical analysis.	Exceptional resistance to acid corrosion prevents damage to the container walls.

Model Code	Inner Length (mm)	Inner Width (mm)	Inner Height (mm)	Wall Thickness (mm)	Max Temperature (°C)
KT-SYZ-ID10	10	10	10	2 - 3	1200
KT-SYZ-ID15	15	15	15	2 - 3	1200
KT-SYZ-ID20	20	20	20	2 - 3	1200
KT-SYZ-ID30	30	30	30	2 - 3	1200
KT-SYZ-ID150	150	150	150	2 - 3	1200
KT-SYZ-ID200	200	200	200	2 - 3	1200

Model Code	Outer Length (mm)	Outer Width (mm)	Outer Height (mm)	Wall Thickness (mm)	Max Temperature (°C)
KT-SYZ-OD5010	50	10	10	2 - 3	1200
KT-SYZ-OD10010	100	10	10	2 - 3	1200
KT-SYZ-OD5015	50	15	10	2 - 3	1200
KT-SYZ-OD10015	100	15	10	2 - 3	1200

Model Code	Outer Length (mm)	Outer Width (mm)	Outer Height (mm)	Wall Thickness (mm)	Max Temperature (°C)
KT-SYZ-OD5020	50	20	15	2 - 3	1200
KT-SYZ-OD10020	100	20	15	2 - 3	1200
KT-SYZ-OD5030	50	30	20	2 - 3	1200
KT-SYZ-OD10030	100	30	20	2 - 3	1200
KT-SYZ-OD5040	50	40	25	2 - 3	1200
KT-SYZ-OD10040	100	40	25	2 - 3	1200
KT-SYZ-OD5050A	50	50	30	2 - 3	1200
KT-SYZ-OD10050A	100	50	30	2 - 3	1200
KT-SYZ-OD5050B	50	50	50	2 - 3	1200
KT-SYZ-OD100100A	100	100	30	2 - 3	1200
KT-SYZ-OD100100B	100	100	50	2 - 3	1200
KT-SYZ-OD100100C	100	100	100	2 - 3	1200
KT-SYZ-OD200100	200	100	50	2 - 3	1200

Material Type	Dimensional Limits	Options / Features	Customization Scope
Quartz Tubes	Outer Diameter: 2 - 450 mm; Wall Thickness: 0.5 - 20 mm	Clear, frosted surface, polished ends	Custom cut lengths, slotted, flanged
Quartz Rods	Diameter: 1.5 - 80 mm	Polished, precise cross-sections	Bending, tapering, support hooks
Quartz Glass Plates	Custom shapes based on user drawings	Transparent, frosted, drilled	Round, square, custom-machined steps
Matching Covers	Sized to match all KT-SYZ boats	Flat lid, recessed lip, gas ports	Available on request