

ALUMINA CRUCIBLES

Trapezoid-Shaped



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Trapezoid Alumina Crucible Features:

1. Exceptional Chemical Inertness

- Resists corrosion from acids, alkalis, and molten salts, making them ideal for high-purity applications like metal refining or ceramic processing.

2. High-Temperature Tolerance

- Withstands temperatures up to 1,700°C (3,092°F), ensuring reliability in extreme heat environments such as furnaces or sintering processes.

3. Mechanical Strength

- Maintains structural integrity under thermal shock and mechanical stress, reducing the risk of cracking or deformation during use.

4. Non-Porous & Leak-Proof

- Smooth, dense surface prevents contamination and ensures no leakage of molten materials, critical for precision tasks.

Why Choose Alumina Crucibles?

Their combination of heat resistance, chemical purity, and mechanical reliability makes them indispensable in research labs, production facilities, and high-tech industries. Whether handling reactive metals or sensitive ceramics, alumina crucibles deliver consistent, high-performance results.

Trapezoid Alumina Crucible Properties

Property	Unit	99.7% Al ₂ O ₃	99.5% Al ₂ O ₃	99% Al ₂ O ₃	96% Al ₂ O ₃
Color		Ivory White	Ivory White	Ivory White	Ivory White
Density	g/cm ³	3.94	3.9	3.83	3.75
Water Absorption	%	0	0	0	0
Hardness	Mohs Hardness	9.1	9	9	8.8
Flexural Strength (20°C)	Mpa	330	320	300	260
Compressive Strength (20°C)	Mpa	2300	2300	2210	1910
Maximum Operating Temperature	°C	1730	1700	1680	1600
Thermal Expansion Coefficient (25°C to 800°C)	10 ⁻⁶ /°C	7.6	7.6	7.6	7.6
Thermal Conductivity (25°C)	W/(m·K)	29	27	24	22
Dielectric Strength (5mm thickness)	AC-kv/mm	22	21	19	15
Dielectric Loss at 25°C@1MHz	---	< 0.0001	< 0.0001	0.0003	0.0004
Dielectric Constant at 25°C@1MHz	---	9.8	9.7	9.5	9.2
Volume Resistivity (20°C)	Ω·cm ³	>10 ¹⁴	>10 ¹⁴	>10 ¹⁴	>10 ¹⁴
Volume Resistivity (300°C)	Ω·cm ³	2*10 ¹²	2*10 ¹²	4*10 ¹¹	2*10 ¹¹

Trapezoid Alumina Crucible Applications:

1. High-Temperature Processing

- Metals & Alloys: Melting aluminum, copper, gold, etc. without contamination.
- Ceramics & Glass: Used in molten oxide and alkali-resistant applications.



2. Laboratory Use

- Chemical Synthesis: High-temperature reactions & sample preparation.
- Analytical Testing: Compatible with XRF, ICP, ensuring contamination-free results.



3. Electronics & Semiconductors

- Wafer Processing: For silicon wafers and electronic components.
- Sapphire Growth: Used in crystal growth methods like Kyropoulos or HEM.

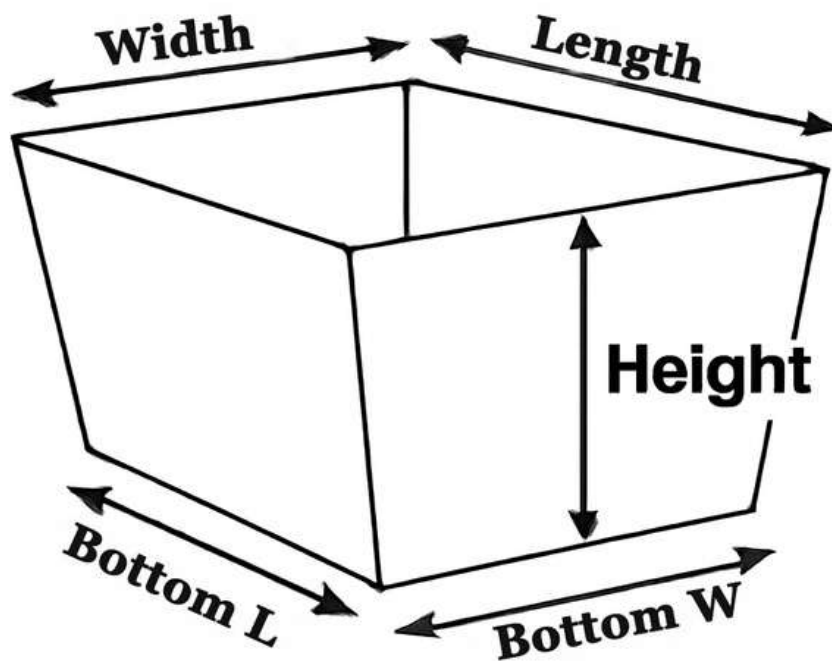


4. Jewelry & Precision Manufacturing

- Precious Metal Casting: Melting gold, platinum, etc.
- Dental Alloys: High-purity applications in dental restorations.



Trapezoid Aluminum Crucibles Specifications:



Customize Trapezoid Alumina Crucibles:

01. Inquiry and Design

Contact us with your detailed requirements; our expert technical team creates tailored designs based on your specific needs.



02. Mold and Samples

Settle the mold or sample fee, confirm the design details carefully, and then we will proceed with mold/sample creation.



04. Payment and Delivery

Complete the final payment for the order, and we will then arrange the safe and efficient shipping for your products.



03. Confirm and Produce

Finalize the sample specifications, sign the official production contract, and make the required fifty percent deposit payment to proceed.

⚡ 15 days fast response: From drawing confirmation to functional prototype delivery

Specifications of trapezoid-shaped alumina crucibles

Item NO.	Volume	Length	Width	Height	Wall thickness	Bottom length	Bottom width	Weight
	ml	mm	mm	mm	mm	mm	mm	g
TE-AS-II7-2	5	45	22	14	2	36	14	19
TE-AS-II7-1	6.5	30	20	15	22	27	19	15
TE-AS-II7-4	7	60	17	10	2	51	15	16
TE-AS-II7-3	8	55	25	15	22	41	21	22
TE-AS-II7-5	10	60	25	15	25	50	21	29
TE-AS-II7-7	10	75	17	15	25	65	11	30
TE-AS-II7-6	10	60	30	15	25	50	21	32
TE-AS-II7-8	20	75	35	15	3	67	30	48
TE-AS-II7-12	25	120	30	15	3	113	21	65
TE-AS-II7-9	25	80	40	18	25	74	17	80
TE-AS-II7-10	40	80	55	15	28	70	32	100
TE-AS-II7-15	45	120	100	15	3.5	110	90	233
TE-AS-II7-11	65	90	60	18	28	80	5	90
TE-AS-II7-13	75	120	60	20	3.3	110	51	95
TE-AS-II7-14	100	100	77	27	3	97	75	215