

ZHONGLONG CHEMICAL

75 % to 92% HIGH DENSITY HIGH PURITY ALUMINA CERAMIC

Chemically Inert Smooth Tough Sapphire Hard

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75% alumina ball is a type of ceramic ball used in various applications such as grinding and milling. Some of its features include:

High hardness: 75% alumina balls have a high hardness rating, which makes them ideal for use in grinding and milling applications where hardness is essential.

Wear resistance: The high hardness of 75% alumina balls also gives them excellent wear resistance, which ensures that they last longer and require less frequent replacement.

Chemical resistance: Alumina is resistant to many chemicals, making 75% alumina balls suitable for use in corrosive environments.

High-temperature resistance: Alumina can withstand high temperatures , and 75% alumina balls can be used in high-temperature applications without degradation.

Low density: 75% alumina balls have a low density, which makes them suitable for use in applications where weight is a concern.

Non-magnetic: Alumina is non-magnetic, making 75% alumina balls suitable for use in applications where magnetic interference is a concern.

Cost-effective: Compared to other high-performance ceramics, 75% alumina balls are relatively cost-effective, making them an attractive option for various industrial applications.

CHEMICAL PROPERTIES

Al ₂ O ₃	75%
SiO ₂	20%
Fe ₂ O ₃	0.4%
Na ₂ O	0.8%
Others	3.8%

PHYSICALPROPERTIES

Colour	Light Yellow
Surface Finish	Smooth
Bulk Density	3.15± 0.05 g/cm ³
Porosity	Nil
Water absorption	0.02%
Hardness on Mohs scale	8
Hardness on Vickers Scale	1664 Hv ₅
Self wearing loss (within 24hours)	0.01%
Anti-compression rate(Mpa)	2000 MPa
Crushing strength(3mm)	>800N
Sphericity	95%

PACKAGE

25kgs or 500kgs/bag, 1,000kgs or 1,250kgs/pallet, 20 pallets in a

20'container.



ZHONGLONG 75% ALUMINA BALLS CAN PROVIDE THE FOLLOWING SIZES

Broad Fraction Size (mm)		
30	40	
50	60	
70	80	

* If you don't find the size you want, we provide customized services.

ZHONGLONG ALUMINA BALL (CIP METHOD)

Dimension	Dia.(mm)
30	30土1.5
40	40土2
50	50土2
60	60土2
70	70土3
80	80土3

* ITips on the feeding proportion of our alumina balls in service: Its highly recommended that our products(30. 40) accounts for 50% of the total amoum whereas the bigger balls (50. 60. 70) are aranged at 5:3:2 to match small balls(30. 40) .General speaking the feeding amout of all balls shall be kept at least 51% of the total ball mill vilume t o guarantee the grinding ficiency.

Specdal tip:The best grinded effect could be achieved if the grinded materials! (lury) is kept at 50-60 cm to the mill feeding entrance when the grinding operation is finished.

ZHONGLONG ALUMINA BALL (ROLLING METHOD)

Dimension	Dimension error (mm)
30	30土2
40	40土2
50	50土2
60	60土2

CALCULATION METHOD

M=3.14×R2×D×L×(25%-50%)÷1000

M: Total quantity of ceramic ball

- D: Density (g/cm3)
- R: Radius of the mill (cm)
- L: Length of the mill (cm)



FEATURES

Zhonglong 92% alumina ball is a type of ceramic grinding media made from high-purity alumina powder with a content of 92% alumina. Here are some of its characteristics:

High hardness: 92% alumina balls have a high hardness rating of 9 on the Mohs scale, making them extremely wear-resistant and able to withstand high impact forces.

High density: With a density of 3.6g/cm3, 92% alumina balls are heavier than most other grinding media, which helps improve grinding efficiency.

High temperature resistance: 92% alumina balls can withstand high temperatures up to 1400, making them suitable for use in high-temperature environments.

Chemical resistance: 92% alumina balls are resistant to corrosion by most acids and alkalis, making them suitable for use in harsh chemical environments.

Low water absorption: 92% alumina balls have a low water absorption rate, which helps prevent contamination of the materials being ground.

High purity: 92% alumina balls are made from high-purity alumina powder, which ensures that they do not contaminate the materials being ground.

Wide application: 92% alumina balls are widely used in the ceramics, coatings, and chemical industries for grinding and dispersing various materials.

CHEMICAL PROPERTIES

Al ₂ O ₃	92%
SiO ₂	7%
Fe ₂ O ₃	0.1%
Na ₂ O	0.4%
Others	0.5%

PHYSICALPROPERTIES

Colour	White
Surface Finish	Smooth
Bulk Density	3.63 ± 0.05 g/cm 3
Porosity	Nil
Water absorption	0.01%
Hardness on Mohs scale	9
Hardness on Vickers Scale	2370Hv5
Self wearing loss (within 24hours)	0.01%
Anti-compression rate(Mpa)	2000 MPa
Crushing strength(3mm)	>1050N
Sphericity	95%

PACKAGE

25kgs or 500kgs/bag, 1,000kgs or 1,250kgs/pallet, 20 pallets in a 20'container.

ZHONGLONG 92% ALUMINA BALLS CAN PROVIDE THE FOLLOWING SIZES

Broad Fraction Size (mm)				
0.5	1.0	2.0	3	4
5	6	8	10	13
15	20	25	30	35
40	50	60	70	80

* If you don't find the size you want, we provide customized services.

ZHONGLONG ALUMINA BALL (CIP METHOD)

Dimension	Dia.(mm)
15	15土1
17	17土1
20	20土1
25	25土1.5
30	30土1.5
40	40土2
50	50土2
60	60土2
70	70土3
80	80土3

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ZHONGLONG ALUMINA BALL (ROLLING METHOD)

Dimension	Dimension error (mm)
1-6	±1.5
8-15	±1
17-25	土1.5
30-50	±2





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