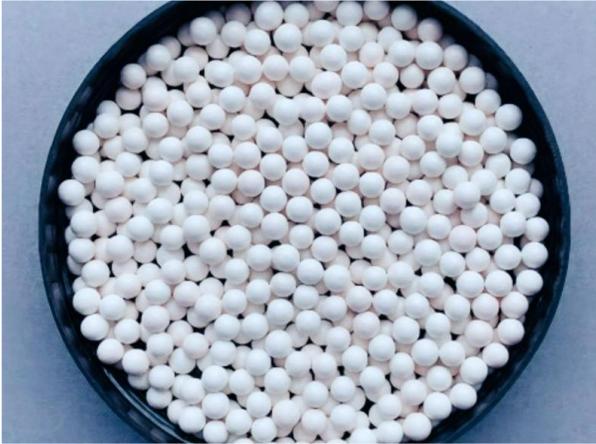




# Zirconia Toughened Alumina Ball



Zirconia Toughened Alumina Ball, also known as ZTA ball, is a high-performance ceramic material that has become increasingly popular in various industries due to its unique properties. ZTA ball is composed of alumina and zirconia, which are two of the hardest and most durable materials available.

One of the main benefits of ZTA ball is its high wear resistance. It can withstand high temperatures and harsh environments, making it ideal for use in applications such as grinding media, wear-resistant linings, and cutting tools. In addition, ZTA ball has a high fracture toughness, which means it can resist cracking and breaking under stress.

Another advantage of ZTA ball is its excellent corrosion resistance. It can withstand exposure to acids, alkalis, and other corrosive substances without deteriorating. This makes it ideal for use in chemical processing and other harsh environments.

ZTA ball also has excellent electrical insulation properties, which make it useful in electronic and electrical applications. It has a low dielectric constant and high electrical resistivity, which allows it to be used in high-voltage applications without risk of electrical breakdown.

Zirconia Toughened Alumina Ball is a versatile and high-performance material that offers many benefits across a range of industries. Its unique properties make it ideal for use in applications where durability, wear resistance, and corrosion resistance are critical factors. As research continues to uncover new uses for this innovative material, we can expect to see even more applications for ZTA ball in the future.

## CHARACTERISTICS&PROPERTIES

ZrO2 Content	Main Composition	Specific Gravities	Bulk Density	Moh's Hardness	Size
7%	ZrO <sub>2</sub> +Al <sub>3</sub> O <sub>3</sub> +SiO <sub>2</sub>	2.75±0.1 g/cm <sup>3</sup>	1.75±0.1 g/cm <sup>3</sup>	7~8	0.5~15 mm
15%	ZrO <sub>2</sub> +Al <sub>3</sub> O <sub>3</sub> +SiO <sub>2</sub>	3.0±0.1 g/cm <sup>3</sup>	1.75±0.1 g/cm <sup>3</sup>	7~8	0.5~15 mm
35%	ZrO <sub>2</sub> +Al <sub>3</sub> O <sub>3</sub> +SiO <sub>2</sub>	3.2±0.1 g/cm <sup>3</sup>	2.0±0.1 g/cm <sup>3</sup>	8	0.5~15 mm
50%	ZrO <sub>2</sub> +Al <sub>3</sub> O <sub>3</sub> +SiO <sub>2</sub>	3.7±0.1 g/cm <sup>3</sup>	2.3±0.1 g/cm <sup>3</sup>	8~9	0.6~5mm
80%	ZrO <sub>2</sub> +Al <sub>3</sub> O <sub>3</sub> +SiO <sub>2</sub>	5.4±0.1 g/cm <sup>3</sup>	3.3±0.1 g/cm <sup>3</sup>	8	0.6~5mm

The data presented in this paper are intended to help users determine the appropriateness of this material for their application.

## CALCULATION METHOD

$M=3.14 \times R^2 \times D \times L \times (25\% - 50\%) \div 1000$   
 R: Radius of the mill (cm)

M: Total quantity of ceramic ball  
 L: Length of the mill (cm)

D: Density ( g/cm<sup>3</sup> )

## PACKAGE

Is packaged by 25kgs / drum. It can be used for a long time, if it is avoided directly to contact with moist environment

## APPLICATIONS

