

Professional
Powder Equipment
Manufacturer



Powder
Equipment



Milling
Technology



Powder
Materials

TENCAN

Product Brochure



BALL MILL MEDIA

Zirconia grinding ball

Zirconia grinding balls with pearl-like luster and smooth surface, ideal ultra-fine grinding media for various applications.

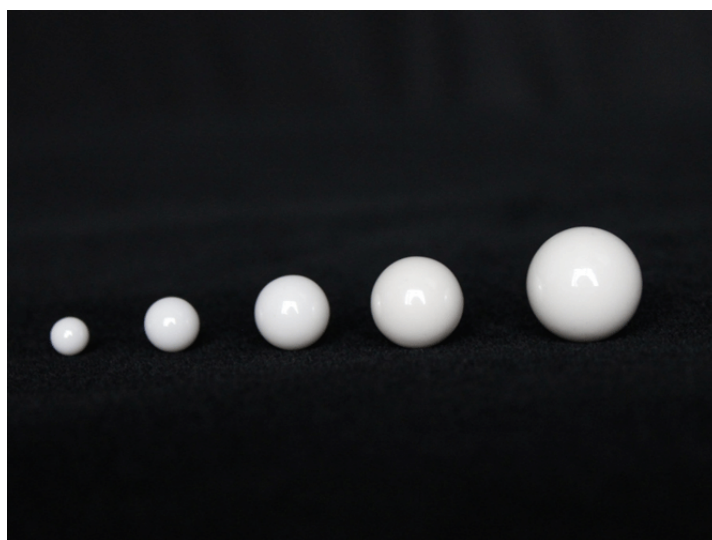
<https://www.labballmill.com/products/grinding-series/ball-mill-media/zirconia-grinding-ball.html>

Generated at 2026-07-28 15:38:09



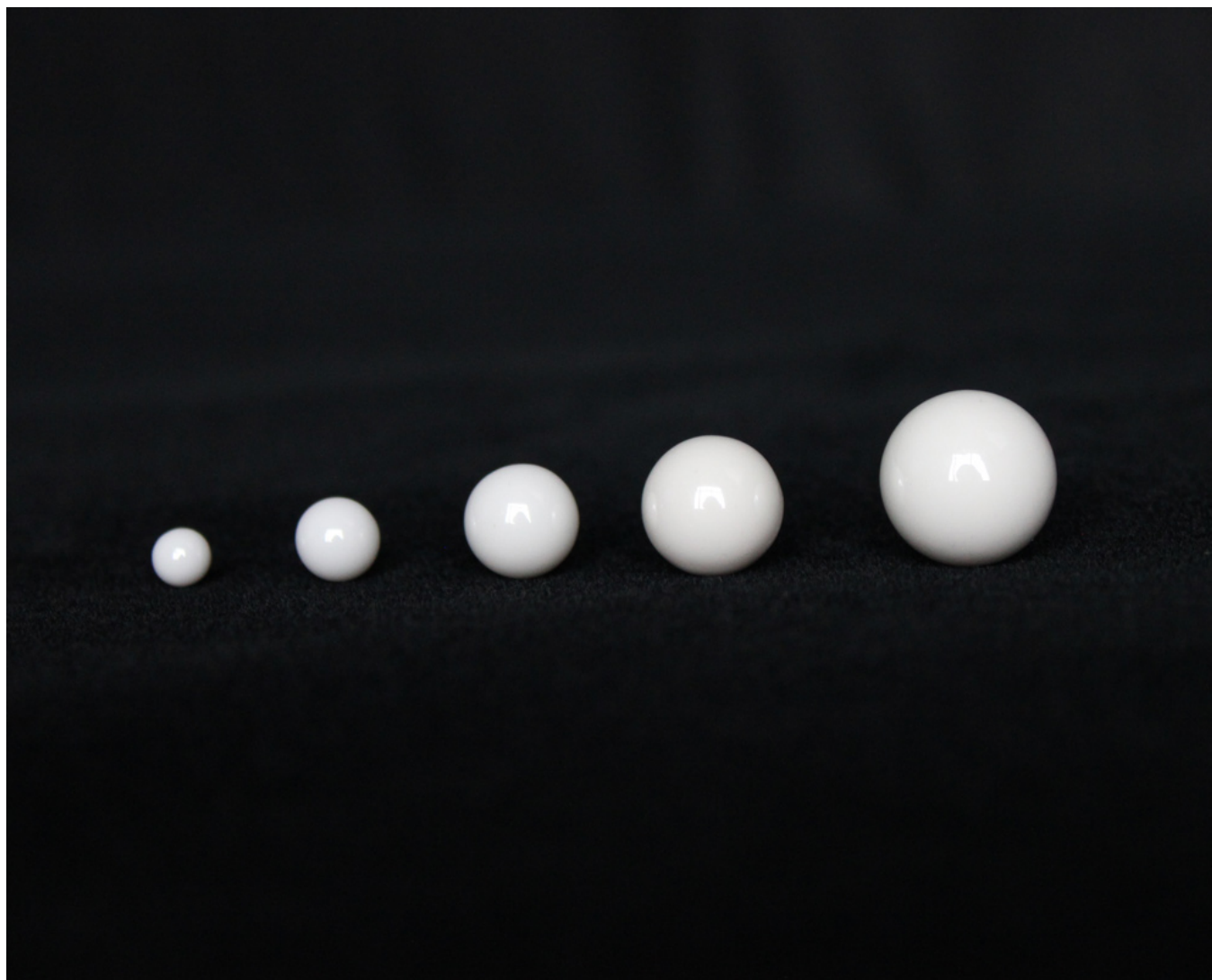
Product Overview

Zirconia grinding balls with pearl-like luster and smooth surface, ideal ultra-fine grinding media for various applications.

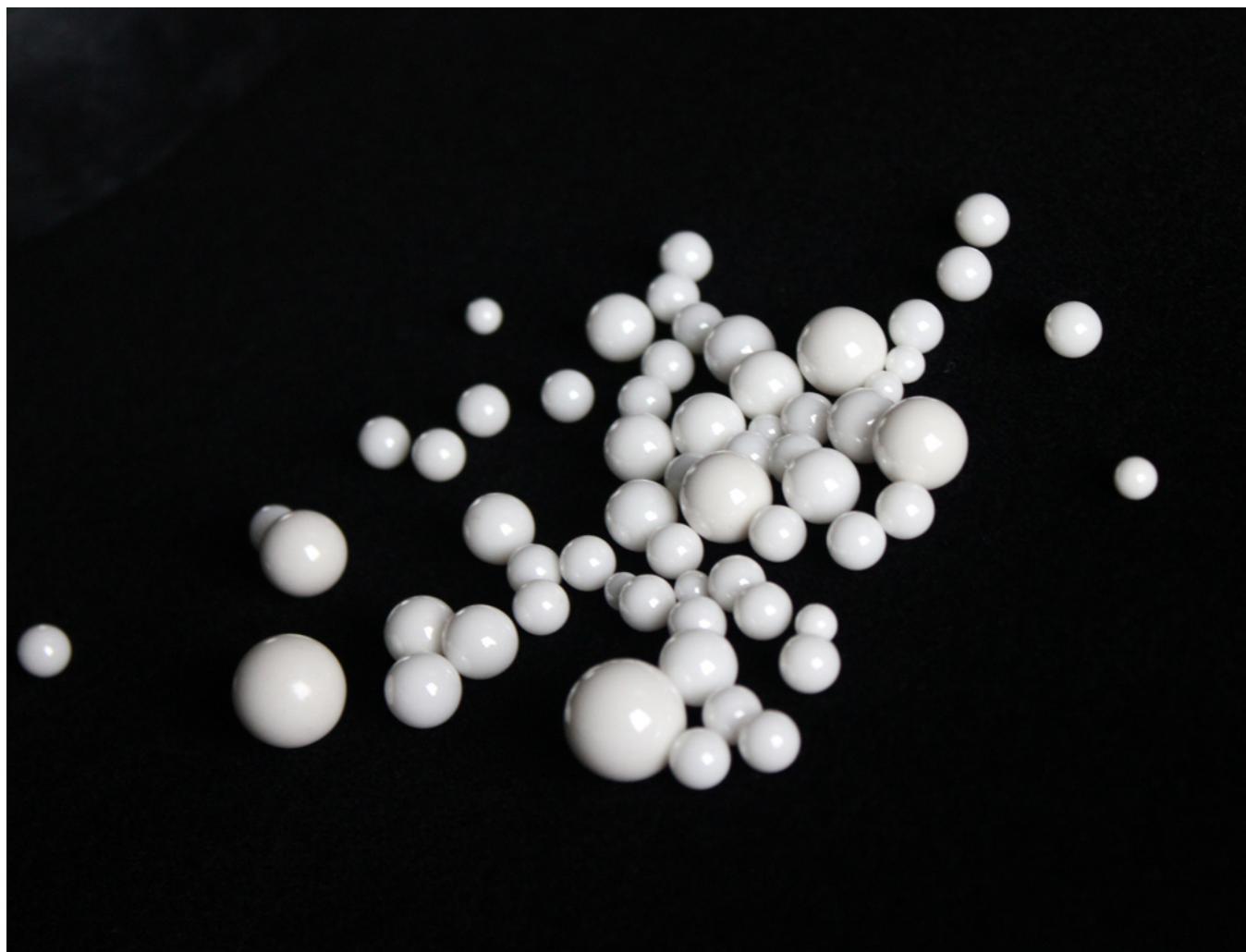


Product Introduction

Zirconia balls, also known as zirconia grinding balls, zirconia ceramic balls, zirconium beads, ultra-fine grinding media, zirconia beads, zirconia grinding balls, have pearl-like luster and smooth working spherical surface, and are widely used in grinding media.







Technical parameters

diameter: $\Phi 1\text{mm}-\Phi 30\text{mm}$

Main ingredients: ZrO_2 ($\geq 95\%$), Y_2O_3 stable

Density (g/cm^3): 6.0

hardness: High, Mohs ~ 8.5 , HV ~ 1250

Wear resistance (wear rate): Excellent, approximately 10^{-7} g/h

Contamination risk: Extremely low, inert, no metal contamination

Main application areas: High-purity, high-efficiency grinding, such as lithium battery materials, electronic ceramics, medicine, and high-end pigments.

*** The above parameters are for reference only. The specific parameters are subject to actual conditions or customized parameters can be customized according to special requirements.;**

Product Features

It has high strength and toughness, high density, good wear resistance, high temperature resistance and corrosion resistance, high stiffness, non-magnetic conductivity, electrical insulation, and thermal expansion coefficient close to steel at normal temperature.

Advantages: At 600°C, the strength and hardness of zirconia ceramic balls are the same as before.

1. High grinding efficiency: The specific gravity of yttrium-stabilized TZP zirconia ceramic beads is 1.6 times that of ordinary zirconia beads, and has higher grinding efficiency under the same conditions.
2. Good fluidity: The product has good roundness, smooth surface, and lower wear on equipment than other grinding media.
3. Impact resistance and low wear: TZP zirconia ceramic beads have good toughness and will not crack or peel in high-speed, high-concentration machines. The wear is only 1/2 of zirconium silicate beads.
4. Low cost of use: Choosing this product will definitely bring you a reduction in comprehensive costs such as media wear, power consumption, labor, equipment, etc., and greatly improve product quality.

Accessories & Customization

Accessories

Grinding jars, heating elements, sample holders, control modules and other matching accessories can be selected according to the product configuration.

Customization

For voltage, capacity, chamber size, process temperature or application requirements, please contact TENCAN for a suitable configuration.