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# TENCAN

## Product Brochure



PLANETARY BALL MILL JAR

## zirconia planetary mill jar

High-purity zirconia planetary mill jar for ultrafine grinding. Zero metal contamination, excellent wear & corrosion resistance. Ideal for battery materials, ceramics, and R&D labs.

<https://www.planetaryballmills.com/products/grinding-series/planetary-ball-mill-jar/zirconia-planetary-mill-jar.html>



## Product Overview

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## Product Introduction

**Zirconia ball mill tank ( Planetary Zirconia Mill Jar** □ It has the advantages of good wear resistance, high strength and low wear, which can ensure that the raw materials being ground will not be mixed with other impurities to the greatest extent.

Zirconia material has excellent physical and chemical properties such as high hardness, high strength, high toughness, extremely high wear resistance and chemical corrosion resistance. Zirconia has been widely used in various fields such as ceramics, refractory materials, machinery, electronics, optics, optical fiber communications, watches and clocks and jewelry, aerospace, biology, chemistry and other fields.

Pure zirconia is a high-grade refractory raw material with a melting point of 2715°C. It can increase the high-temperature viscosity of the glaze and expand the temperature range of viscosity change. It has good thermal stability. When its content is 2%-3%, it can improve the

crack resistance of the glaze. Because of its high chemical inertness, it can improve the chemical stability and acid and alkali resistance of the glaze, and can also act as an opacifying agent. The molecular weight of pure zirconia is 123.22, and the theoretical density is 5.89g/cm<sup>3</sup>



**The planetary zirconia ball mill tank is made of high-purity zirconia material and has excellent wear resistance, corrosion resistance and anti-pollution properties. It is specially designed for ultra-fine grinding of planetary ball mills. It is suitable for dry and wet grinding of sensitive materials such as lithium battery materials, ceramic powders, metal alloys, and pharmaceutical raw materials to ensure zero metal pollution, high sealing and grinding efficiency. Compatible with mainstream planetary ball mill models, it is an ideal grinding vessel accessory for scientific research laboratories and high-end material preparation fields.**

- Zirconia Grinding Jar (zirconia grinding jar)
- Planetary Ball Mill Jar
- Yttria-Stabilized Zirconia Jar (Yttria-Stabilized Zirconia Jar)
- Zirconium Oxide Milling Container
- High-Wear-Resistance Zirconia Jar (high wear-resistant zirconia jar)

## Technical parameters

Model specifications	Outer diameter (mm)	Inner diameter (mm)	Height (mm)
50ML	55	38	67
100ML	65	50	75
250ML	92	74	88
500ML	100	84	118
1L	128	108	148.5
1.5L	132	112	175.5
2L	158	138	162
2.5L	158	138	192
3L	158	138	220
4L	205	175	231
5L	192	170	254

Note: 4L and 5L ball mill tanks are covered with stainless steel. Please call us for specific wall thickness. Other specifications can be customized as required.

It is mainly used for supporting planetary ball mills, and is used with different types of grinding balls to grind materials.

**Choose the appropriate specification based on your grinding needs:**

- 50-250ML: suitable for laboratory small batch sample preparation
- 500ML-1.5L: Suitable for pilot scale research
- 2L-5L: Suitable for industrial production needs

## **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.