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Technical resources

## **zirconia planetary mill jar**

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

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# zirconia planetary mill jar

Model:

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.

## Technical specifications

|                     |             |
|---------------------|-------------|
| Model specification | 50ml-3000ml |
| Outer diameter (mm) | φ55-φ158    |
| Height (mm)         | 38-225      |

These specifications describe the series. Confirm the selected model, power supply and configuration before ordering.



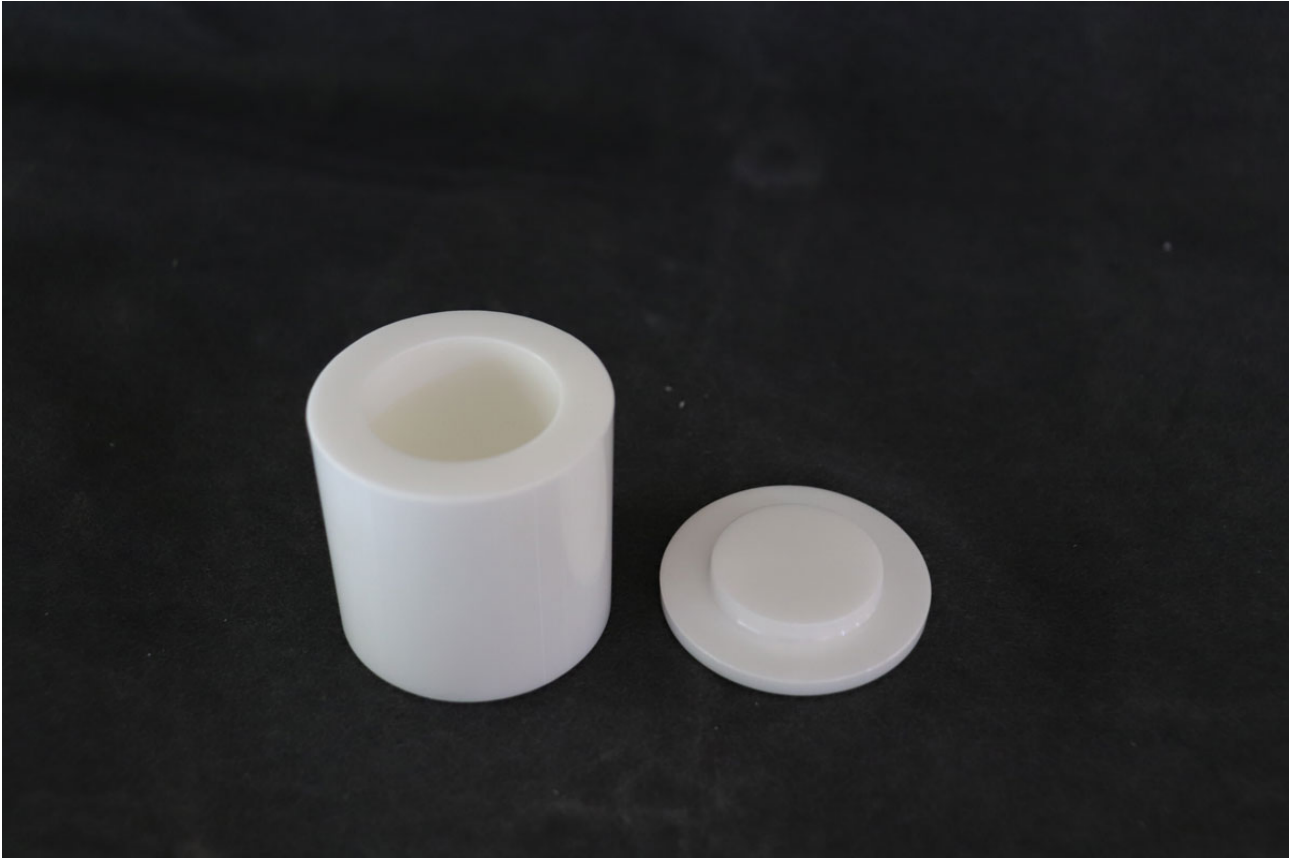
**Zirconia ball mill tank ( Planetary Zirconia Mill Jar )** It has the advantages of good wear resistance, high strength and low wear, which can ensure that the raw materials being ground will not be mixed with other impurities to the greatest extent.

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.

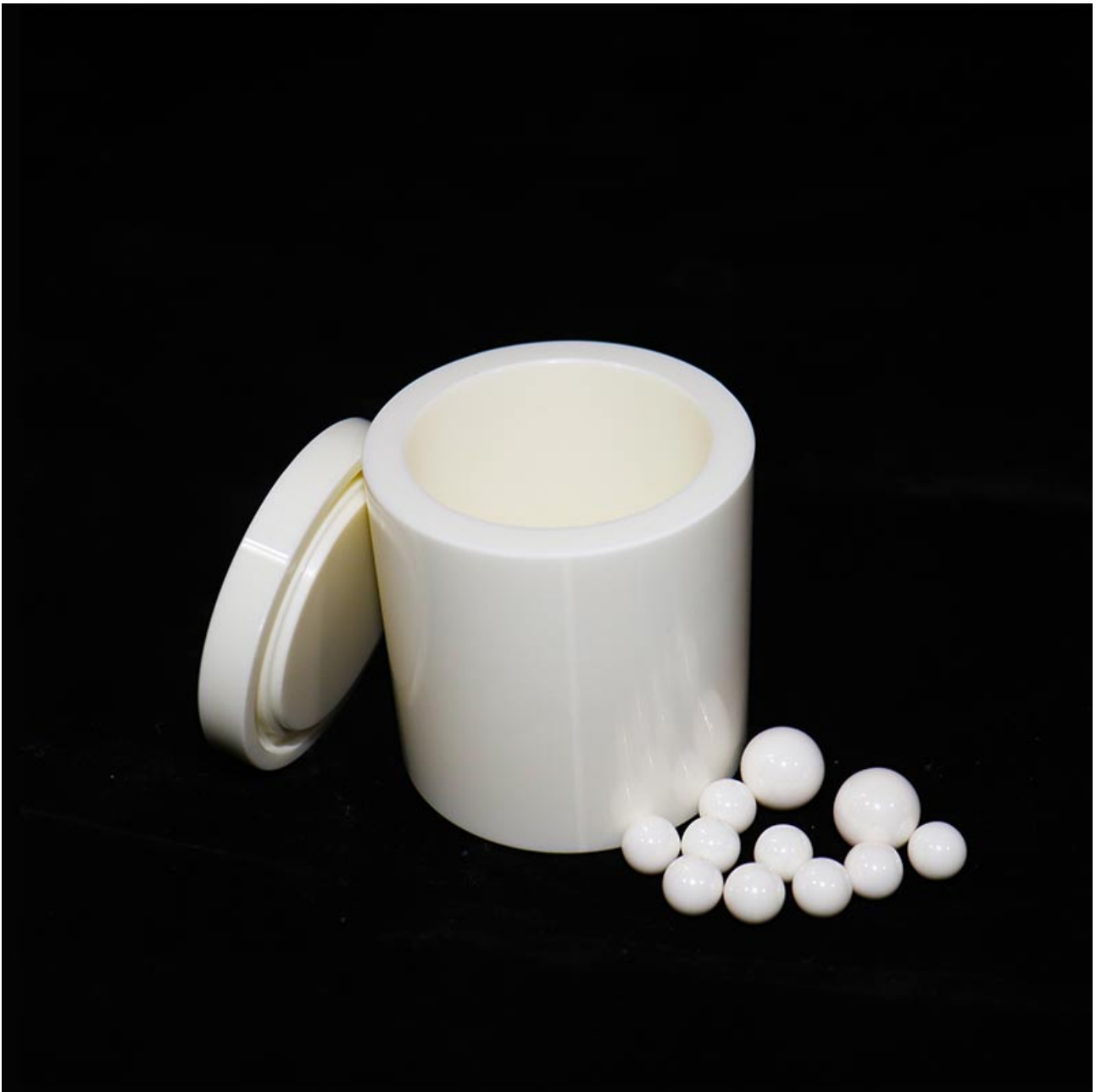
Pure zirconia is a high-grade refractory raw material with a melting point of 2715°C. It can increase the high-temperature viscosity of the glaze and expand the temperature range of viscosity change. It has good thermal stability. When its content is 2%-3%, it can improve the crack resistance of the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

## Contact

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Before operation, review the selected model's instructions and the material requirements.