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Laborgeräte zu fairen Preisen.

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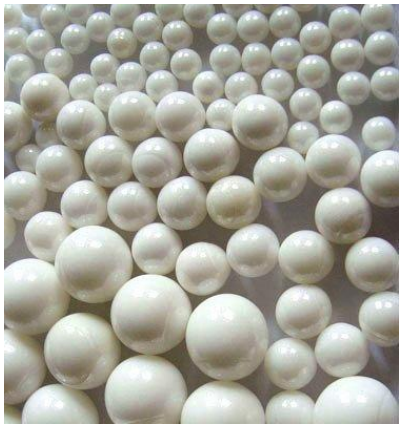
Datasheet YTZ zirconia grinding balls

Planetary ball mills require grinding media with high hardness and impact resistance. Our spherical YTZ grinding balls are made of yttria-doped zirconia and are suitable for grinding and dispersing appropriate samples in compatible ball mills and stirred media mills.

- *Standard pack size: 1kg*
- Material: yttria-doped zirconia (YTZ)
- Shape: spherical
- Material density: approx. 6g/cm³
- Sold and billed per kg



Size overview

Product code	Nominal diameter (mm)	Approx. diameter range (mm)	Approx. tolerance
1605	0.15	0.12–0.18	±20%
1606	0.5	0.4–0.6	±20%
1607	1	0.9–1.1	±10%
1608	2	1.8–2.2	±10%
1609	10	9–11	±10%

Selection and use

Smaller grinding balls are often used for finer grinding results. Depending on the starting material, a staged process using larger balls followed by smaller ones may be appropriate. Match the ball size and grinding conditions to the mill, grinding jar, sample and required result. With suitable materials and carefully matched process conditions, refinement into the nanometre range may be possible; this is not a guaranteed final particle size for every application. Follow the operating requirements of the mill.

The high material density of approx. 6g/cm³ means that 1kg of grinding balls occupies a relatively small material volume. The bulk volume, including voids between the balls, is larger and depends on ball size and packing.

The tolerance figures describe typical diameter ranges and are not batch-specific test results. Achievable particle size and wear depend on the process; contamination-free grinding is not universally guaranteed. Image for illustration.

Other sizes and grinding balls made of other materials, such as tungsten carbide, silicon nitride or agate, are available on request.