

Product information

YTZ[®]

zirconium oxide (ytt-stab.) ZrO₂ 95%

Characteristic and use:

YTZ[®] ceramic pearls and cylinders, produced from yttria stabilized zirconium powder - without any kind of heavy metals - exhibit superior grinding efficiency because of higher density, and has superior wear resistance due to high crushing strength and fracture durability. Additionally these grinding media are resistant to rust and corrosion and thus compatible with water-based processing. The smooth surface and the almost perfect spherical shape with narrow size distribution consequently provides higher productivity in grinding and dispersion. This applies in particular to materials and products within the nano-particle range.

Typical applications are:

- pharmaceutical, dental, cosmetic and foodstuffs
- magnetic, piezo electric and dielectric materials
- high purity advanced ceramic materials, frits and glazes
- pigment, inks, dyes, paint and coating materials
- agrochemicals, calcium carbonates and other minerals

Diameters:

0,03 mm -0,015/+0,02	0,80 mm -0,10/+0,15	3,00 mm -0,20/+0,20
0,05 mm -0,02/+0,03	1,00 mm -0,15/+0,15	5,00 mm -0,30/+0,30
0,10 mm -0,02/+0,03	1,25 mm -0,15/+0,15	10,00 mm -1,00/+1,00
0,20 mm -0,03/+0,07	1,50 mm -0,15/+0,15	15,00 mm -1,00/+1,00
0,30 mm -0,01/+0,07	1,75 mm -0,15/+0,15	20,00 mm -1,00/+1,00
0,40 mm -0,05/+0,10	2,00 mm -0,15/+0,15	25,00 mm -1,00/+1,00
0,50 mm -0,05/+0,15	2,30 mm -0,15/+0,15	3/8" cylinder dia -/+0,30 h -/+0,50
0,65 mm -0,10/+0,15	2,70 mm -0,20/+0,20	1/2" cylinder dia -/+0,50 h -/+0,70

Technical properties:

Shape	round
Density (spec.gravity)	6 g/cm ³
Hardness (HV10)	1250
Warmth extension coefficient	9,6 x 10 ⁻⁶ K ⁻¹ (20-400°C)
Surface	smooth
Modulus of elasticity	210 GPa
Settled apparent density	3,6 kg/dm ³
Bending strength	1200 MPa
Purity	food-pure
Fracture toughness	6,0 MPam ^{0,5}
Wear rate	0,50 ppm/h

Chemical composition:

ZrO ₂	95%
Y ₂ O ₃	5%

Packing:

- in units with 1 kg each

Storage:

in dry rooms

Subject to change - All information is given in good faith but without warranty. We cannot accept responsibility or liability for any damage, resulting from the use of this information