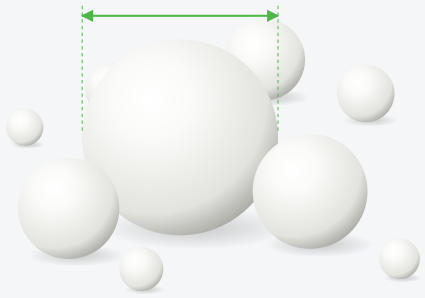
GRINDING MEDIA

ZTA Grinding Beads

Zirconia-toughened alumina (Al_2O_3 / ZrO_2)

Alumina reinforced with zirconia for extra toughness. The hardest media in our range, with better crush strength and lower wear than standard alumina at a fraction of the cost of zirconia.

12 GPa	1100 N	1.3 g/kg·h
VICKERS HARDNESS	CRUSH STRENGTH	WEAR LOSS



Stocked Ø 2.5–3.0mm · 5.0–6.0mm

CHEMICAL COMPOSITION

$Al_2O_3 + ZrO_2$	≥ 92 %
SiO_2	≤ 5 %
Others	≤ 3 %

Mass fraction, specification limits.

DENSITY VS. AMV MEDIA

YSZ	6.00
Ceria zirconia	5.95
Zirconium silicate	4.08
ZTA	3.70
Alumina	3.60

g/cm³, minimum values.

PHYSICAL PROPERTIES

Density	≥ 3.70 g/cm³
Vickers hardness	≥ 12 GPa
Crushing strength	≥ 1100 N
Wear loss	≤ 1.3 g/kg·h
Sphericity	≥ 95 %
Water absorption	≤ 0.01 %
Color	White

STOCKED SIZES

Ø 2.5 – 3.0 mm	1 kg pack
Ø 5.0 – 6.0 mm	1 kg pack
Other sizes	On request

Bulk quantities and custom size ranges available. Ask us for a quote.

TYPICAL APPLICATIONS

- Paints, inks and mineral slurries in bead and basket mills
- Upgrade from alumina media when wear or breakage is a problem
- Lab and pilot ball milling of ceramic and oxide powders

USE & CARE

Pair with: Alumina planetary jars (A grade) or bead mill chambers.

Rinse new media before first use to remove fines. As a starting point for planetary milling, fill about one third of the jar with media, one third with sample and leave one third free.

Values are specification limits (minimum or maximum) and typical results for guidance only; they are not a warranty of performance in a specific process. Customers should confirm suitability for their application. Specifications may change without notice; the current version is on our website.

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