

ZIRCONIA BEADS

ZIROX- YZB

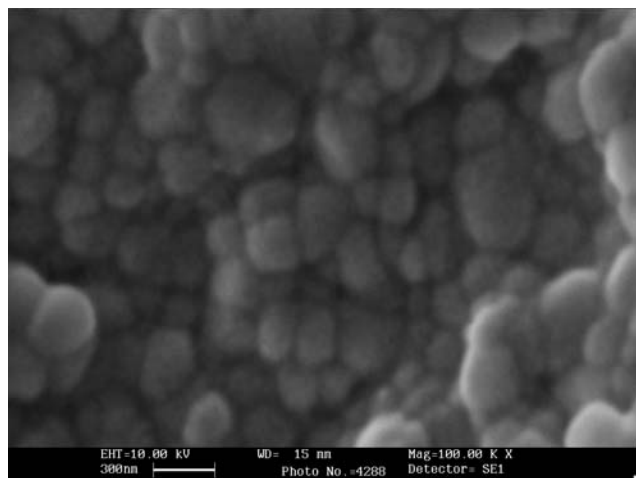
Salient features:

- **Smooth surface** all the time inherited due to fully dense sintered structure.
- **Smallest possible sintered grain size (nano to submicron size)**
- Homogenized chemical composition.
- Reduction in bead –bead friction
- Reduction of bead-grinding chamber friction force
- Reduced temperature control
- Energy saving
- Less or say no damages to inner wall of chamber
- All time Smooth surface enhances easy cleaning thus reduces the down time while product changes
- Minimized cross contamination \
- High wear resistant feature imparts longer life when compared with similar type beads
- Cost effective

Application areas:

Dispersion and particle size reduction of Paint,Pigments & coatings, inks,toners,dispersions, Electronics, Biotech & pharmaceuticals, Textile, Advance Ceramics, Nano materials,ultra fine grinding /particle size reduction etc. zirconia beads Zirox YZB Suits all type of bead mills including nano dispersion and grinding mills

Nano zirconia powder Zirox TZY-3n grade is used for compounding YZB beads to impart near-net theoretical density, hardness and fracture toughness. Sub-micron level grain structure and allied properties resulting in superior wear resistancy and long life.



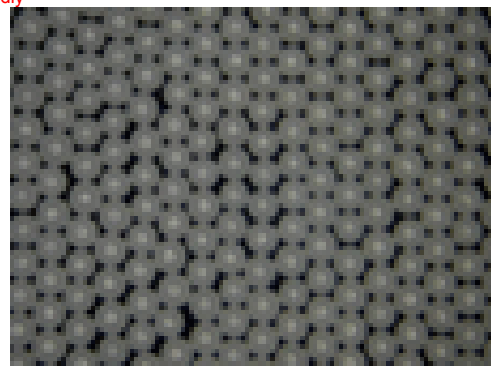
Zirconia beads-ZiroxYZB grain arrangements@ 300nm scale

Size and roundness range

Size (mm)	Distribution Range (mm)	Roundness (%)
0.05	0.03-0.07	>90
0.09	0.07-0.12	
0.1	0.1~0.15	
0.2	0.15~0.25	
0.3	0.2~0.4	
0.4	0.3~0.5	
0.5	0.4~0.6	
0.65	0.5~0.8	>96
0.8	0.65~0.95	
1.0	0.8~1.2	
1.5	1.3~1.7	

Superior Roundness and Narrow size distribution

Roundness and narrow size distribution properties are the key factors in high speed milling for obtaining best performance and efficiency. YZB beads possess +96 % roundness. Apart from this they also have very narrow size distribution in the interest of accruing optimized milling efficiencies repeatedly



Roundness and size distribution of ZIROX YZB size: 0.5mm

* can be customized as per required specs.

* Physical Properties

Chemical Composition

Properties	Values	Composition	Content (wt %)
Specific Gravity (g/cm ³)	> 6.0	ZrO ₂ (+HfO ₂)	+94.2
Hardness (Vickers)	1200~1300	Y ₂ O ₃	5.3
Toughness (M N m ^{-3/2})	8~10	Al ₂ O ₃	0.1-0.25
Crystallite (µm)	< 0.4	Fe ₂ O ₃	< 0.002
Color	Ivory white	Na ₂ O	< 0.005

For quote and more details about Zirox-YZB beads ,please contact:



ZIROX Technologies

F-8,Phase III, Riico Industrial Area, Beawar 305901. Rajasthan – India.

Tel +91 1462 512340, fax +91 1462 226966, Cellular +91 9414009700

email: zirox50@gmail.com, zirox50@hotmail.com, ssr@zirox.co.in, Website: <http://www.zirox.co.in>