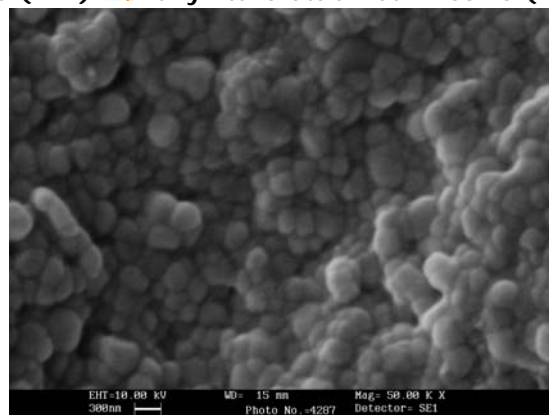
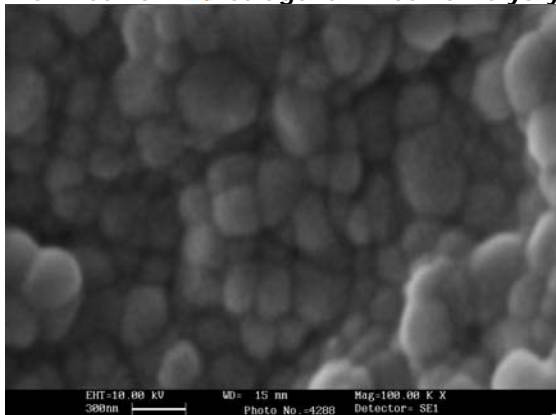


Zirconia

Zirox-CP

Yttria stabilized Zirconia Powders (ZrO₂-Y₂O₃)

→ Monoclinic Zirconia → Tetragonal Zirconia Polycrystal (TZP) → Fully Yttria Stabilized Zirconia (FYSZ)



TZY-3nSB Zirconia- Sintered grain size image @ 300nm TZY-3nSB Zirconia- Sintered grain size image @ 1um scale (uni-axially pressed & sintered at 1350°C having density of 6.07 g/cc)

Constituents Grade wise wt %	ZM Monoclinic Zirconia	ZM-n Nano Monoclinic Zirconia	TZY 3 mol% Yttria Stabilized Zirconia (Without binder)	TZY-SB Spray dried 3 mol% Yttria Stabilized tetragonal Zirconia with binder	TZY-3n nano 3 mol% Yttria Stabilized tetragonal Zirconia (without binder)	TZY-3nSB spray dried Nano 3 mol% Yttria Stabilized tetragonal Zirconia with binder	FZY-8n Nano 8 mol% yttria Fully stabilized Zirconia
ZrO ₂ (HfO ₂)	99.9	99.9	94.80	94.80	94.80	94.80	86.15
Y ₂ O ₃	00.00	00.00	5.20	5.20	5.20	5.20	13.75
Other impurities	Individually in between 20-100ppm, total < 1000 ppm						
Sintered grain size			500-1500nm	500-1500nm	100-500nm See above images	100-500nm See above images	
Vickers Hardness HV 10					+1350	+1350	
Bulk density (gm/cm ³)	00.42		00.36	01.17			0.42
Surface area (BET-m ² /g)	8,15,30	8,15,30	8 & 15	8 & 15	8 & 15	8 & 15	
Sintering temp (°C)	-----		1450-1530	1450-1530	1320-1380	1320-1380	-----
Sintered Density (gm/cc)			06.07	06.07	06.07	06.07	

Applications : suitable for uniaxial, Cold isostatic, Hot isostatic (CIP/HIP) pressing, injection molding, extrusion, slip casting, tape castings techniques for making dental implants, SOFC (Solid Oxide Fuel Cells), Bio Ceramics, Abrasives, Electronics, Precision ceramic components, Polishing, catalysts, coatings, Plastics, zirconia beads, grinding media, liners, seals, optical fibre ferrules, sleeves, wear resistant parts, structural and textile ceramics, probes, crucibles, wire drawing dies, friction etc applications.

Important notice regarding this information:

The statements and technical information contained in this document are based on our research and research of others. However, this document is not contractual, and nothing in it, constitutes a warranty (expressed or implied) that the goods described are accurate and fit for a particular purpose of the customer. Purchasers are advised to make their own tests to determine the suitability. This specification supersedes any former publication and is subject to change without notice.

For more detail, please send queries to:



ZIROX Technologies

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

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

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