



Zirconia Grinding Media

**Faster Grinding, with Less Contamination ...
& Reduced Media Weight Loss**



Specialization – Zircoa understands. Whether you're grinding minerals, such as zircon, or electronic ceramics, you need the proper media to do the job right. With more than 40 years of specialized experience – Zircoa delivers.

Our Strategy – Your Satisfaction

Zircoa's grinding media has been used successfully, for more than 40 years, to grind electronic ceramics, zircon and zirconia. Our on-going engineering and manufacturing refinement allows us to keep pace with this market. This pro-active approach also prepares us for partnering with the newer electronics markets, which demand higher purity and much less contamination.

A Superior Media

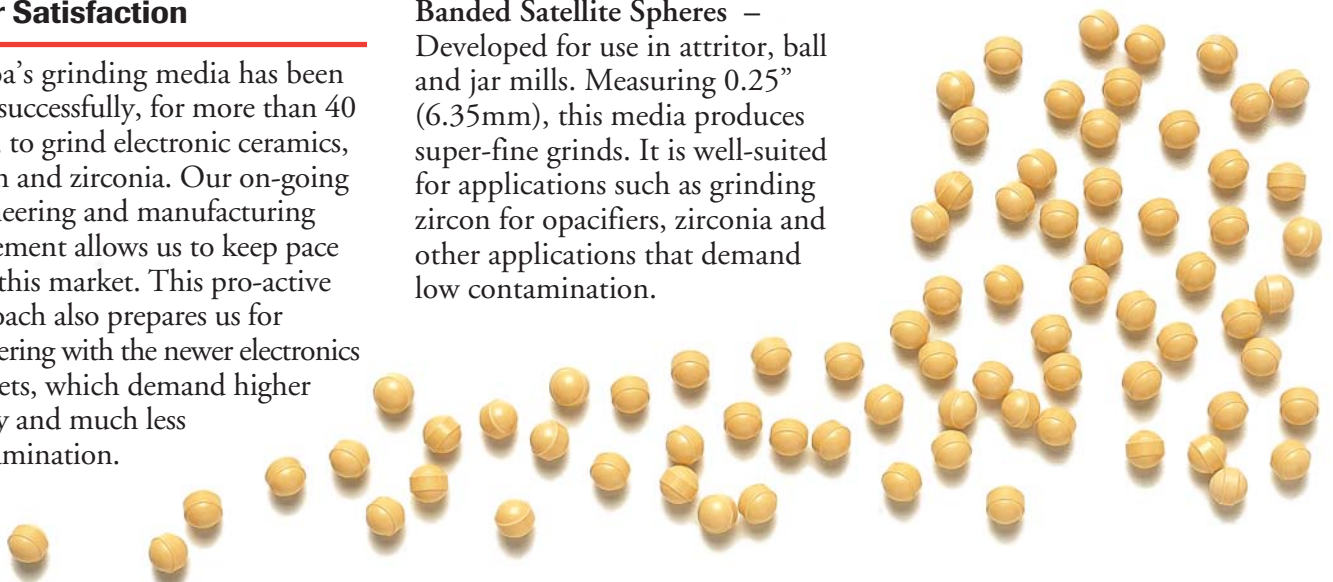
Our media is made of magnesia stabilized zirconia. This formulation is non-porous, non-conductive and non-magnetic. It is chemically inert, chip-resistant and extremely hard. Zircoa engineers this formulation into both radius-end cylinder and banded satellite sphere shapes.

Banded Satellite Spheres –

Developed for use in attritor, ball and jar mills. Measuring 0.25" (6.35mm), this media produces super-fine grinds. It is well-suited for applications such as grinding zircon for opacifiers, zirconia and other applications that demand low contamination.

Radius-End Cylinders –

Developed for use in vibratory, ball and jar mills. Manufactured in various sizes to accommodate your specific requirements. Well-suited for grinding barium titanates and other electronic ceramics, zircon, zirconia and other specialty ceramics.



Stocked Sizes

Shapes/Sizes	Approximate		
	Number of	Pieces per	
in	(mm)	lb	(kg)
Radius-end cylinders			
1.25 x 1.25	(31.8 x 31.8)	3	(7)
1 x 1	(25.4 x 25.4)	7	(15)
0.75 x 0.75	(19.1 x 19.1)	18	(40)
0.5 x 0.5	(12.7 x 12.7)	65	(143)
0.375 x 0.375	(9.53 x 9.53)	150	(333)
0.25 x 0.25	(6.35 x 6.35)	426	(939)
Banded satellite spheres			
0.25 D	(6.35 D)	401	(884)

Note: To obtain a 50% media charge, 14 lb. / gal. (1.68kg / l) media are required. Packing density is approximately 210 lb. / ft.³ (3364kg / m³); 28 lb. / gal. (3.36kg / l).

Properties

Chemistry, wt. %	97 ZrO ₂ 3MgO	<0.30 SiO ₂ <0.30 CaO <0.20 Fe ₂ O ₃ <0.20 Al ₂ O ₃ <0.20 TiO ₂
Bulk density, g/cm ³		5.5
Apparent porosity, %		0
MOR at room temp		
1000 psi		60
Mpa		414
Tensile strength at room temp (.6 MOR)		
1000 psi		36
Mpa		248
Fracture toughness (K _{1C}) — MPa√m		7
Weibull Modulus		10
Hardness		
Rockwell A		80-84
Vickers (HV _{0.3} Kg/mm ²)		1050

Ready to Assist You

Need more help, or have a specialized need? We are ready to put our 40+ years of experience to work for you. Please contact our application engineers to discuss your requirements.



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