

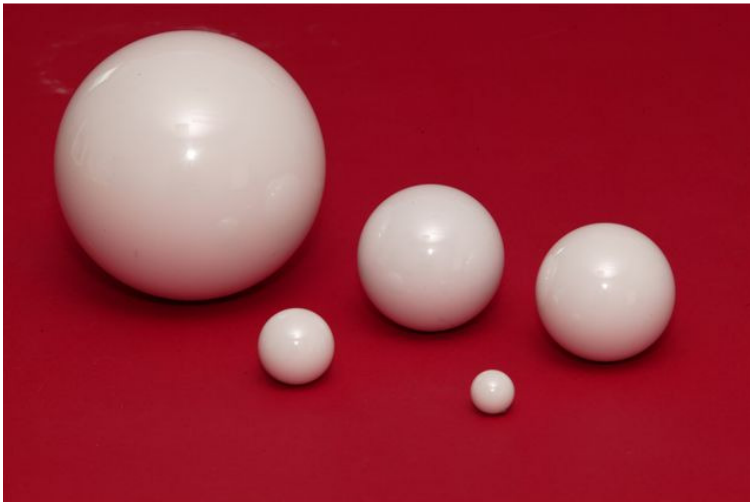


## Zirconia Ceramic Balls

Refractron Technologies Corp. is a leading manufacturer of **technical ceramics**. Products include both controlled porosity and densely structured ceramics designed to meet requirements specified by our customers for durability, chemical, corrosion and wear resistance, toughness, and density.

Refractron Technologies Corp's Magnesia-partially Stabilized Zirconia (MgPSZ) is optimum choice for precision ceramic balls where the traditional metal alloys are not ideal. Precision balls made with Refractron's Mg-PSZ Zirconia have superior abrasion resistance as compared to 316SS, D2-Steel, Stellite Alloys 6 and Tungsten Carbide. In addition, zirconia is inert to virtually all acids, bases, solvents, and other corrosive slurries and fluids.

Refractron's MgPSZ zirconia ceramic balls will allow you to extend service life enabling you to improve operating efficiencies, reduce maintenance costs, and minimize downtime with less frequent repairs. Our zirconia is extremely strong, has superior toughness, and excellent abrasion resistant. Additionally we use a proprietary manufacturing process, starting with the highest purity raw materials that results in a chemically superior zirconia product as compared to the competition. This translates into superior chemical stability of the ceramic components in operation when subject to the corrosive liquids and slurries.



The range of dense **structural ceramics** using proprietary zirconia ceramics includes custom blended ceramic alloy powders formed by isopressing or extrusion to meet customer specifications. These ceramic alloy components are used in extreme wear and corrosion applications in the chemical and petrochemical industry as well as components for healthcare and dental applications.

Refractron specializes in larger zirconia balls and maintains some stock of finished balls sizes that include: Grade 25 Balls 3/4" to 1 1/2" OD, Grade 100 Balls 2" to 4" OD. Additionally some smaller zirconia balls from 1/2" to 11/16" OD (G25) are also in stock along with un-ground ball "blanks" in a range of these sizes. Mg-PSZ Balls provide better (6X) Abrasion Resistance than Tungsten Carbide along with better (3X) Impact Resistance that Silicon Carbide.



Proven applications for structural zirconia ceramic includes: Chemicals [hot caustic, acids, solvents], Materials handling [abrasive fluids, suspensions], High velocity fluids, Oil and gas (pipe spools, liners, sleeves), Pulp and paper, Metal forming and All wear-prone and corrosive environments.

In addition to ceramic balls, the types of dense, structural ceramic components produced by Refractron include: valve components, liners- sleeves, plugs, pistons, precision, press tooling, dental blanks, extrusion tooling and wear plates. Other specialty products include a range of porous ceramic filters, diffusers and adsorbent filter/drier cores for refrigeration applications, dispersion parts, vacuum chucks, inkpads and gas probes.

We work closely with our customers to define their needs and the requirements of each specific structural ceramic application. Our engineering and sales team is great at attacking technical design and process problems, then customizing an innovative solution using our broad range of **advanced industrial ceramics**. Contact us with your application requirements

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