



## CeramaZirc

### *High Performance Zirconia*

**Dubbed 'ceramic steel' Zirconia ( $ZrO_2$ ) ceramic materials offers a combination of high hardness, wear and corrosion resistance while still maintaining one of the highest figures for fracture toughness amongst ceramic materials**

Precision Ceramics offers a range of Zirconia materials spanning from conventional sintered Zirconia to high performance Nano Zirconia consolidated by Hot Isostatic Pressing.

#### **Key properties of Zirconia ceramic**

- Use temperatures up to 1000°C
- Low thermal conductivity
- Chemical inertness
- Resistance to molten metals
- Wear resistance
- High fracture toughness
- High hardness

#### **Typical Uses of $ZrO_2$**

- High pressure equipment ball valve balls and seats
- High density ball grinding media
- Rollers and guides for metal forming
- Thread and wire guides
- Metal extrusion dies
- Deep well down-hole valves and seats
- Powder compacting dies
- Pump seals and shaft bearings
- Oxygen sensors
- High temperature induction furnace susceptors
- Fuel cell membranes

**www.precision-ceramics.co.uk**  
Advanced Technical Ceramic Solutions



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