

## Zirconia (ZrO<sub>2</sub>)

### Features

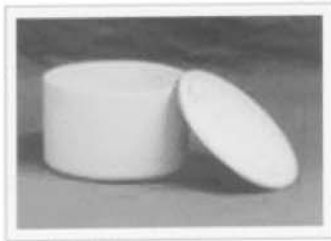
- High Density and Toughness
- Super Hardness
- Strong Wear and Corrosion Resistant
- Prevention of Contamination
- High Temperature Proof
- Acid and Alkaline Resistance

### Applications

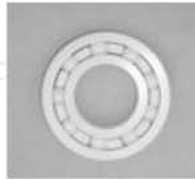
- Ball Valve ,Ball Bearing
- Bed Knife ,Razor Back Knife
- Crucible
- Ferrule and Sleeve for Optic Fiber Communication
- Ring ,Plate ,Pipe ,Box
- Friction Disc for Textile Machines
- Oil Valve

### Characteristics of Material

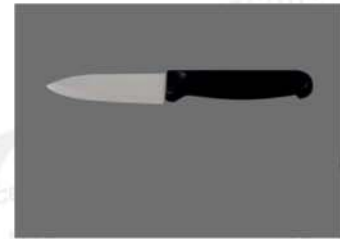
Item	Unit	Value
Bulk Density	g/cm <sup>3</sup>	6.0
Hardness	HRA	87
Thermal Expansion Coefficient	10 <sup>-6</sup> /°C	9.6 (at 20~400°C)
Modulus of Elasticity	GPa	200~500
Fracture Toughness	MPam <sup>1/2</sup>	10
Bending Strength	MPa	>1150
Thermal Conductivity	W/m.K	2.5



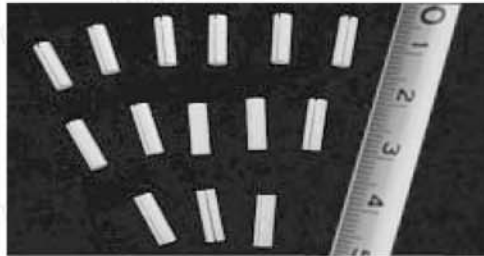
Crucible



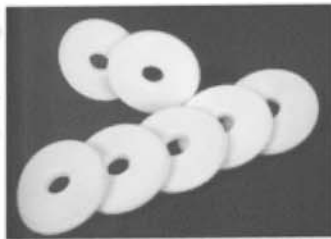
Bearing



Fruit knife



Ferrule and sleeve for optic fiber



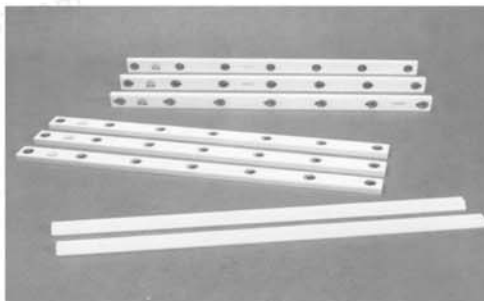
Friction disc



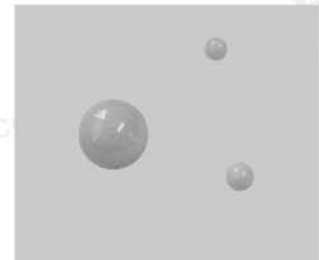
Sleeve



Oil valve



Bed knife



Ball