

# Ceramic Components

With sintered alumina as a base, many other types of ceramic material have been developed, The technical ceramics are classified according to their use, specifically functional material (electro-ceramics) and structural materials (engineering ceramics). As a leading exporter of advanced technical ceramics, INNOVACERA continually develops and provides the most advanced ceramics.



## Benefits;

- High reliability and safety
- High density and mechanical property
- High Temperature Resistant
- Excellent corrosion and wear resistance
- Self-Lubricating and Self-Cleaning

## Materials;

- Alumina( $Al_2O_3$ ): 95, 99.3, 99.7
- Silicon Carbide(SiC)
- Silicon Nitride( $Si_3N_4$ )
- Zirconia( $ZrO_2$ )
- Others(ZTA, MACOR, Micro-hole Ceramic)

## Forming technologies;

- Cold Isostatic pressing
- Injection moulding pressing
- Dry pressing
- Hot pressing
- CNC Processing



# APPLICATIONS

INNOVACERA provides advanced, high-purity ceramics for high-technology applications. Our engineering experts can help you choose the best material from hundreds of alumina, carbides, and other high-performance materials.

- **Pump and Valve Parts**

Pump Plunger, Magnetic pump shafts and sleeves for superior wear resistance. In ball and faucet valves, ceramic are used to provide excellent sealing quality and wear resistance.



- **Medical equipment and chemical analyzer parts**

The chemical stability of ceramics permits their application to the artificial kidney pump. Free from corrosion and superior in cleaning properties, ceramic material are also used in blood valves.

- **Nozzle**

Scrubber and Spay nozzles require ceramic excellent chemical and wear resistance. In cleaning nozzles, through which water flows at a high rate, wear resistance is essential ceramic superior heat resistance is utilized in welder and burner nozzles



- **Grinding mill parts**

Benefiting from high wear resistance, grinding mills use ceramics for their liners, agitator screws and rollers. Balls mill are manufactured from the same materials being milled.

- **Food machine parts**

the inherent cleanliness and simple cleaning procedures of ceramics are greatly appreciated in kneading rollers and in parts for filling machines such as valves and pumps



- **Paper making part**

Ceramics, superior in wear resistance, are used in cleaner cones separating foreign matter from pulp slurry.

# APPLICATIONS

- **Cutter**  
of all ceramic materials, zirconia exceeds in strength toughness and wear resistance, and is used in industrial cutters and slitters to process fiber, paper, film and similar materials.
- **Physiochemical equipment parts**  
Superior chemical and heat resistance with on outgasing at high temperatures allow high purity alumina ceramics to be used in analytical equipment
- **Thread guides**  
Ceramic is used in guide parts for thread processing and oiling nozzles, rollers and twining parts because of its high wear resistance, very low susceptibility to damage by high-speed running of thread, and low friction coefficient.
- **Living and household appliances**  
Less subject to rust and more wear resistant than conventional metal, ceramic are used for knives, golf and baseball spikes, clock casings and many other sport and recreational appliances.
- **Wire drawing machine parts**  
To benefit from ceramics wear resistance and light weight, wire drawing machine parts use ceramics in capstan rollers and wire guide rollers.



ADVANCED CERAMIC WORLD

INNOV◀CERA

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