



# Company Profile

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# About Our Company

Advanced Ceramics Hub is a leading supplier of high-performance ceramic materials, offering a wide range of advanced ceramics, including Boron Nitride (BN), Alumina ( $\text{Al}_2\text{O}_3$ ), Aluminum Nitride (AlN), Silicon Carbide (SiC), Zirconia ( $\text{ZrO}_2$ ), etc. With advanced manufacturing technology and stringent quality control, we are committed to delivering high-reliability, high-quality ceramic solutions to drive technology innovation and industrial advancement.



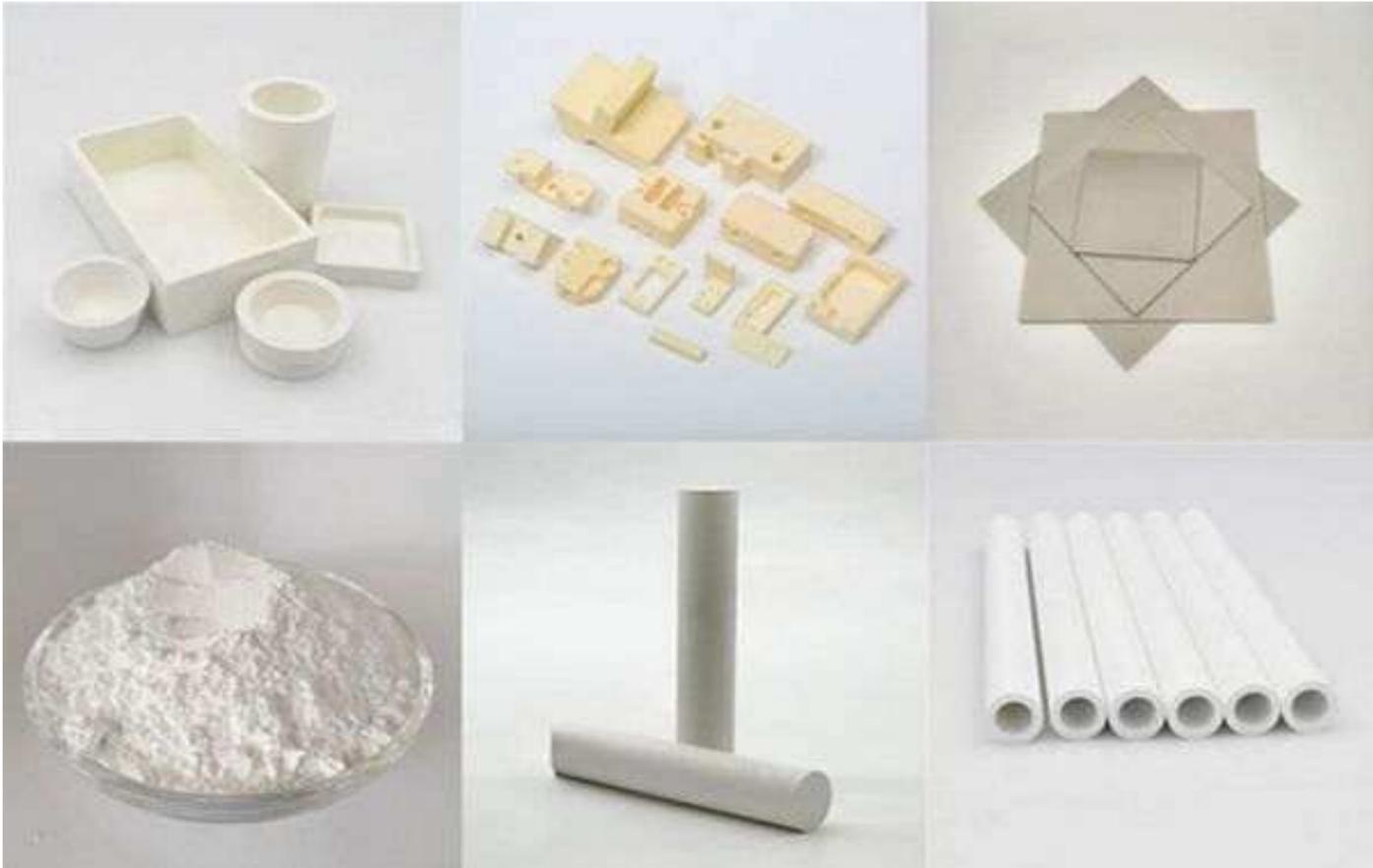
## Empowering the Future of Technology

Advanced technical ceramics are vital in high-tech industries due to their heat resistance, corrosion resistance, insulation, and strength. They are widely used in semiconductors (ceramic chucks, PBN crucibles), new energy (solid-state batteries, fuel cells), medical fields ( $\text{ZrO}_2$  implants, surgical tools), and aerospace (SiC turbine blades, thermal coatings).



# Our Core Materials

At Advanced Ceramics Hub, we offer the most sought-after technical ceramic solutions in rods, discs, tubes, and custom shapes. Our ceramics deliver superior performance, tight tolerances, and reliability in challenging environments.



**Boron Nitride**  
Ultra-high temperature insulation, self-lubricating chemically inert



**Pyrolytic Boron Nitride**  
Non-wettable, ultra-pure, thermally stable.



**Alumina**  
High hardness, corrosion resistance, cost-effectiveness



**Aluminum Nitride**  
High thermal conductivity, electrical insulation, low thermal expansion.



**Carbon Boride**  
Ultra-hard, high-temperature resistant, chemically stable.



**Graphite Products**  
High thermal conductivity, machinable, oxidation-resistant.



**Magnesium Oxide**  
High melting point, electrical insulation, strong corrosion resistance.



**Quartz**  
Thermal shock resistance, low thermal expansion, dielectric stability.



**Silicon Carbide**  
Extreme wear resistance, 1600'C stable, semiconductor-grade



**Silicon Nitride**  
Heat-resistant, electrically insulating, structurally stable



**Zirconia**  
High strength, wear-resistant, fracture tough.



**Zirconia Toughened Alumina**  
Enhanced toughness, high hardness, excellent wear resistance.

# Boron Nitride Ceramic (BN)

Boron Nitride Ceramic (BN) offers a unique combination of thermal stability, electrical insulation, and machinability. With excellent resistance to high temperatures and chemical inertness, BN ceramics are widely used in vacuum systems, semiconductor processing, and molten metal handling. Its lubricating properties and low dielectric constant also make it suitable for applications requiring both thermal and electrical performance.

## Main Products

- Boron Nitride Spherical Powder
- Boron Nitride Modified Platelet Powder
- Boron Nitride Platelet Powder
- Boron Nitride Powder
- Boron Nitride Custom Parts
- Boron Nitride Nozzle
- Boron Nitride Gasket
- Boron Nitride Crucible
- Boron Nitride Tube
- Boron Nitride Ring
- Boron Nitride Plate/Sheet/Disc
- Boron Nitride Blank
- Boron Nitride Rod



**Boron Nitride Spherical Powder**



**Boron Nitride Ring**



**Boron Nitride Tube**



**Boron Nitride Plate/Sheet/Disc**

# Pyrolytic Boron Nitride (PBN)

Pyrolytic Boron Nitride (PBN) is a high-purity, chemically inert material known for its excellent thermal stability and resistance to thermal shock. With a unique structure that makes it non-wettable by metals, PBN is ideal for use in high-temperature vacuum environments. Its electrical insulation properties and low friction characteristics make it highly effective in semiconductor applications, as well as in components exposed to extreme thermal conditions, offering durability and reliability across demanding industries.

## Main Products

- Pyrolytic Boron Nitride Custom Parts
- Pyrolytic Boron Nitride Heater
- Pyrolytic Boron Nitride Boat
- Pyrolytic Boron Nitride Crucible
- Pyrolytic Boron Nitride Plate/Sheet/Disc
- Pyrolytic Boron Nitride Ring
- Pyrolytic Boron Nitride Tube
- Pyrolytic Boron Nitride Rod



Pyrolytic Boron Nitride Heater



Pyrolytic Boron Nitride Boat



Pyrolytic Boron Nitride Crucible



Pyrolytic Boron Nitride Ring

# Alumina Ceramic ( $\text{Al}_2\text{O}_3$ )

Alumina Ceramic ( $\text{Al}_2\text{O}_3$ ) is a widely used advanced ceramic known for its excellent hardness, wear resistance, and electrical insulation. It performs reliably under high temperatures and harsh chemical environments, making it suitable for a broad range of industrial applications such as electronic substrates, cutting tools, insulators, and biomedical components. Its combination of mechanical strength and thermal stability ensures long-lasting performance in demanding conditions.

## Main Products

- Alumina Nano Spherical Powder
- Alumina Spherical Powder
- Alumina Near-Spherical Powder
- Alumina Custom Parts
- Zirconia Toughened Alumina Substrate
- Alumina Substrate
- Alumina Ring
- Alumina Bushing
- Alumina Boat
- Alumina Ball
- Alumina Crucible



Alumina Substrate

Alumina Custom Parts



Alumina Ball



Alumina Crucible

# Aluminum Nitride Ceramic (AlN)

Aluminum Nitride Ceramic (AlN) is a high-performance material valued for its exceptional thermal conductivity and electrical insulation. With low thermal expansion and strong resistance to corrosion, AlN ceramics are ideal for applications in power electronics, LED packaging, and semiconductor equipment. Its ability to efficiently dissipate heat while maintaining electrical isolation makes it a preferred choice for advanced thermal management solutions.

## Main Products

- Aluminum Nitride Surface Modification Powder
- Aluminum Nitride Granulation Powder
- Aluminum Nitride Custom Parts
- Aluminum Nitride Electrostatic Chuck
- Aluminum Nitride Sputtering Target
- Aluminum Nitride Substrate
- Aluminum Nitride Heater
- Aluminum Nitride Heat Sink
- Aluminum Nitride Crucible
- Aluminum Nitride Plate/Sheet/Disc
- Aluminum Nitride Tube



AlN Surface Modification Powder



AlN Electrostatic Chuck



AlN Sputtering Target



Aluminum Nitride Substrate

# Other Products

Other Products include a wide range of advanced ceramic and refractory materials such as Boron Carbide ( $B_4C$ ), Graphite (C), Magnesium Oxide (MgO), Quartz, Silicon Carbide (SiC), Silicon Nitride ( $Si_3N_4$ ), Zirconia ( $ZrO_2$ ), and Zirconia Toughened Alumina (ZTA). These materials are available in various forms including nozzles, rings, rods, sheets, plates, balls, substrates, powders, tubes, blocks, blanks, and custom parts. Each product is designed to meet the needs of demanding environments where high strength, thermal resistance, and chemical stability are critical.

- Boron Carbide Ceramic ( $B_4C$ )
- Graphite Products (C)
- Magnesium Oxide Ceramic (MgO)
- Quartz
- Silicon Carbide Ceramic (SiC)
- Silicon Nitride Ceramic ( $Si_3N_4$ )
- Zirconia Ceramic ( $ZrO_2$ )
- Zirconia Toughened Alumina Ceramic (ZTA)



**Boron Nitride Crucible**



**Fused Quartz Wafer**



**Silicon Carbide Disc**



**Zirconia Ceramic Ball**

# Connect With Us.

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## Call us

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