

Product Catalog

Shenzhen Huaxin Precision Ceramics Co., Ltd has been committing to the design, development and manufacture of industrial ceramic product since 1999. Our product including zirconia ceramic part, alumina ceramic part, steatite ceramics, SIC and Si3N4 ceramic, cordierite ceramic and mullite porcelain, precision ceramics, fine fishing ceramics, ceramic blades and ceramic knives.

Huaxin has a factory area of 8000sqm located in Shenzhen Nanshan District, and one professional sales office located in Longgang District. Now it employs more than 200 people, over 1/4 has rich experience in ceramic manufacture field with over 10 years. After years of efforts and exploration we accumulated rich experience in tech ceramic field, especially in flat processing, precision processing and polishing. We have advanced production and processing equipment, a number of senior developers and skilled technicians.

Zirconia Ceramic Parts

High toughness zirconia parts for wear surfaces that run against metal, fluid or fibre without picking up magnetism or corroding.

Zirconia Ceramic Plungers — Ground and polished zirconia plungers for dosing pumps and high pressure cleaners.

Material	Zirconia
Color	White, black
Shape	Custom
Size	Custom
Density	6.0 g/cm3
Flexural Strength	800 Mpa
MONS' Hardness	8.2

Zirconia Ceramic Structural Parts — Made to drawing zirconia structural components for machinery, fibre optics and food equipment.

Material	Zirconia
Color	White, black
Shape	Custom
Size	Custom
Density	6.0 g/cm3
Flexural Strength	800 Mpa
MONS' Hardness	8.2

Zirconia Ceramic Rod — Centreless ground zirconia rod, custom size and colour, low MOQ.

Material	Zirconia
Features	High hardness, high strength, high temperature
Size	Customized
Color	Customized

MOQ	Low MOQ
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Al2O3 Alumina Ceramic Parts

95% and 99% alumina rings, tubes, substrates and plates for insulation, wear and high temperature service up to 1650C.

99% 95% Al2O3 Alumina Ceramic Ring — Dense alumina rings for pump seals, insulators and wear seats, in 95% and 99% grades.

Material	Alumina ceramic
Size	Customized
Shape	Ring
Density	3.10-3.15 g/cm3
Rockwell Hardness	≥ 92HRA
Modulus of Elasticity	410 Mpa
Maximum use temperature	1600°C

Textile Machinery Ceramic Accessories — Alumina yarn guides and eyelets in standard D6*5 to D10*10 sizes or to your drawing.

Material	Alumina
Color	Pink, white, red, black
Size	D6*5 D8*8 D4*3 D9*9 D10*10 or custom
Shape	Custom

Refractory Alumina Ceramic Tube — Furnace work tubes and thermocouple protection tubes rated to 1650°C.

Color	White, pink
Density	3.85 g/cm3
MONS' Hardness	Grade 9
Maximum Use Temperature	1650°C

Al2O3 Alumina Ceramic Substrates — Substrates from 0.1mm thick, with in-house laser cutting, drilling, scribing and marking.

Shape	Custom
Material	Alumina
Density	3.8 g/cm3
Working temperature	1600°C
MOQ	10 pcs
Min Thickness	0.1mm
Lead Time	1-2 days standard size in stock, 5-7 days customized size

99% Al2O3 Alumina Ceramic Sheet Blank Plate — Injection moulded 99% alumina blanks and finished plates, MOQ 1 piece.

Size	Customized
Color	White, black
MOQ	1 pcs
Sample time	4-7 working days

Steatite Ceramic Parts

Talc based steatite beads, strips and insulators for electrical heating assemblies where dielectric strength matters more than toughness.

Electrical Steatite Ceramic Bead — Bush, bead and fish spine steatite insulators for heating element leads.

Material	Steatite
Size	Custom
Shape	Bush, bead, fish spine or custom
Forming process	Dry pressing / Hot pressing

Steatite Ceramic Insulator — Sticks, strips, channels, bricks, knuckles, tiles and blocks for 1100°C electrical service.

Material	Steatite
Shape	Stick, strip, channel, brick, knuckle, tile, blocks
Usage	Excellent electrical insulators
Working temperature	1100 degree

Industrial Ceramic Heating Ring And Strip — 1 to 8 hole ceramic heating strips for flexible pad heaters up to 1650°C.

Size	1-8 hole
Color	White, grey, pink
Max Working Temp	1650°C (3000°F)
Application	30V / 60V / 80V Flexible Ceramic Pad Heater (FCP)

Metallized Ceramic Parts

Mo/Mn metallized and plated alumina ready for brazing into vacuum interrupters, feedthroughs and hermetic assemblies.

Metallized Alumina Ceramic Ring — Mo/Mn metallized and Ni, Cu, Ag or Au plated rings ready to braze.

Material	Alumina (Al ₂ O ₃)
Size	Custom
Color	White + metal
Coating Layer	Mo/Mn
Plated Layer	Ni, Cu, Au, etc
Metallization thickness	25 ±10 um
Nickel thickness	2-10 um
Pin pull strength	4200 kgf/cm ² avg at Φ3.0mm pin

SSIC And SIC Parts

Silicon carbide rings, cylinders and seal faces for abrasive slurry and hot gas duty where alumina wears through too quickly.

SIC Silicon Carbide Ceramic Ring Cylinder — Silicon carbide rings and cylinders held to $\pm 0.005\text{mm}$.

Shape	Custom
Size	Custom
Application	Industry ceramic
Tolerance	$\pm 0.005\text{mm}$

Ceramic Blades And Knives

Zirconia and silicon nitride blades for clipper heads, slitting and shearing tools that dull or corrode when made from steel.

Precision Zirconia ZrO₂ Ceramic Blade — Non-magnetic zirconia blades that hold an edge in wet and corrosive cutting.

Color	White
MOQ	10 pcs
Material	Zirconia
Density	6.0 g/cm ³
MONS' Hardness	8.2
Flexural Strength	800 Mpa

Si₃N₄ Silicon Nitride Ceramic Blade Knife — Black Si₃N₄ blades with the best all-round mechanical package in structural ceramics.

Material	Silicon Nitride
Color	Black
MOQ	10 pcs
Dimension	Customized
Application	Machinery, electronic, chemical, petroleum etc

Zirconia Ceramic Replacement Clipper Blade — 18th and 25th replacement clipper blades with up to 5x the life of steel.

Size	18th, 25th
Color	White, black, yellow, purple
MOQ	100 pcs
Sample delivery	3-5 days
Delivery time	4-7 days

Machinery Ceramic Parts

Discs, pistons and wear parts that go straight into pumps, taps and textile machinery as a drop-in replacement for metal.

Alumina Ceramic Disc For Water Pump — Lapped alumina discs for pump and tap cartridges that have to seal on water for years.

Material	Alumina ceramic
Shape	Round or custom
Color	White
Usage	Refractory
Density	3.6 g/cm3 - 3.9 g/cm3
Method	Hot pressing / Dry pressing

Zirconia Ceramic Properties

Physical Properties		
Colour		white
Density	g/cm3	6.0
Zirconia Content	%	94.40%
Gas permeability		0
Water Absorption	%	0%
Crystal Size	um	0.5
Mechanical Properties		
Rockwell Hardness (45N)	R45N	78
Vickers Hardness (Load 500g)	GPa(Kg/mm2)	11.5 (1175)
Flexural Strength (20C)	MPa	800
Compressive Strength (20C)	MPa	2000
Modulus of Elasticity (20C)	GPa	> 200
Fracture Toughness (20C)	MPam ^{1/2}	9.0
Thermal Properties		
Thermal Conductivity (20C-400C)	W/(m.K)	2.5
Thermal Expansion Coefficient	10-6/C	9.6
Thermal Shock Resistance	dT C	250

99% Alumina Ceramic Properties

Physical Properties		
Color		Ivory/Beige
Density	g/cm3	3.85
Alumina Content	%	99%
Gas permeability		0

Water Absorption		0
Mechanical Properties		
MONS' Hardness	Grade	9
Rockwell Hardness	HRA	92
Vickers Hardness (Hv50)	Gpa(Kg/mm2)	15.7 (1600)
Flexural Strength (20C)	Mpa	330
Compressive Strength (20C)	Mpa	2000
Fracture Toughness (20C)	MPam ^{1/2}	4
Modulus of Elasticity	Gpa	350-400
Thermal Properties		
Thermal Conductivity (20C-400C)	W(m.K)	27.5
Thermal Expansion Coefficient	10-6/C	7.6
Thermal Shock Resistance	dT C	200
Maximum Use Temperature	C	1650
Electronic Properties		
Dielectric Strength	KV/mm	> 10
Dielectric Constant	Er	9.1
Dielectric Loss Angle (1MHz)		0.0002-0.0003
Volume Resistivity (20C)	ohm.cm	> 10 ¹⁴

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