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# Our Product Introduc

# Custom Beryllium Oxide Ceramics Beo Ceramic Beryllia Ceramic

# Basic Information

Place of Origin: Zhengzhou ,China Brand Name: Rongsheng Xinwei

• Certification: ISO9001

Model Number: Rongsheng Beryllium Oxide Ceramics

Minimum Order Quantity: 10 PiecesPrice: 200-800USD

Packaging Details: packed on wooden pallets, with water-proof

cover, and tightened with plastic/steel

bandages

Delivery Time: 10-20 Days
Payment Terms: TT; L/C
Supply Ability: 2000tons /month



# **Product Specification**

Chemical Resistance: High
Color: White
Durability: High
Flexibility: Low

Hardness: Various Hardnesses

Heat Resistance: High
Material: Other
Moisture Resistance: High
Shape: Round
Size: Small

• Strength: Various Strengths

• Texture: Smooth

• Thickness: Various Thicknesses

UV Resistance: HighWeight: Light

# Product Description

# **Description of Custom High Quality Beryllium Oxide Ceramics**

Beryllium oxide belongs to cubic crystal system, with a density of 3.03g/cm3 and a melting point of 2570 . It has high thermal conductivity and thermal conductivity  $\lambda$  It is 200-250W/(m · K), and has good thermal shock resistance. The dielectric constant is 6-7 (0.1MHz), and the dielectric loss tangent is about 4 × 10-4 (0.1GHz), can be used for a long time under 1800 vacuum, 2000 inert atmosphere and 1800 oxidation atmosphere.

Beryllium oxide ceramic is an advanced ceramic with beryllium oxide (BeO) as the main component. It is characterized by high thermal conductivity, high melting point, high strength, high insulation, high chemical and thermal stability, low dielectric constant, low dielectric loss and good process adaptability. It is a structural ceramic material with excellent performance and is widely used in special metallurgy, aerospace, vacuum electronics, nuclear technology, microelectronics and optoelectronics, Especially in high-power semiconductor devices, high-power integrated circuits, high-power microwave vacuum devices and nuclear reactors, it has been the mainstream ceramic materials for preparing high thermal conductivity components.

### Typical applications:

Due to its excellent thermal, electrical, nuclear and mechanical properties, beryllium oxide ceramics can be used as carrier

parts and assemblies in the aerospace field, as a neutron retarder and radiation protection material in atomic reactors in the nuclear industry, as a high-performance, high-power microwave package, as well as a wide band high-power electric vacuum device, and as a crucible for melting rare metals and precious metals, such as uranium and plutonium, It can also be used as refractory material for supporting rods of heating elements, etc., and has an excellent application in various fields.

# Performance index

Item	Test Condition	Unit	Inde
Bulk Density		g/cm <sup>3</sup>	≥2.8
Beryllium oxide content		%	≥99
Air tightness			Pass
Liquid permeability			Pass
Flexural strength		MPa	≥17(
Thermal shock resistance			Pass
Coefficient of linear expansion	20 -500	×10 <sup>-6</sup> /	7-8.5
Thermal conductivity	25	W/(m·k)	≥250
Partial constant	100	W/(m·k)	≥190
Tangent value of dielectric loss angle	1MHz 20		6.5-7.
Volume resistivity	10GHz 20		6.5-7.
Breakdown strength	1MHz 20	×10 <sup>-4</sup>	≤4
Chemical stability	10GHz 20	×10 <sup>-4</sup>	≤8

# Main Products:

No	Product	Application
1	99 Beryllium oxide ceramic substrate	Solid state electronics, various high-power devices, optical comm
2	99 Beryllium oxide ceramic metallized substrate	Solid state electronics, various high-power devices, optical comm
3	99 Beryllium oxide ceramic polishing substrate	Solid state electronics, various high-power devices, optical comm
4	97 Beryllium oxide ceramic substrate	Solid state electronics, various high-power devices, optical comm
5	99 Beryllium oxide ceramic pole	High power traveling wave tube
6	99 Beryllium oxide ceramic tile	High power traveling wave tube
7	99 Beryllium oxide ceramic column	High power electronic device
8	99 Beryllium oxide ceramic cylinder	Vacuum device
9	99 Beryllium oxide ceramic crucible	Melting
10	99.5 Beryllium oxide ceramic shaped parts	Nuclear, high power period, vacuum device, microwave

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