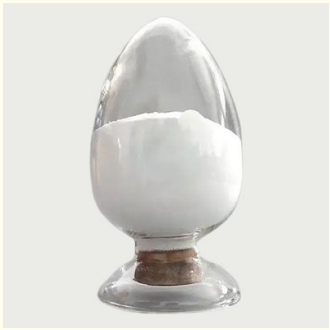
Zirconia Powder Refractory Raw Material Ultrafine Yttria Stabilized Zirconia Powder

Our Product Introduction

Basic Information

- Place of Origin: Zhengzhou, Henan, China
- Brand Name: Rongsheng Xinwei
- Certification: ISO Certification
- Model Number: 3YZ-TPZ, 5YZ-TPZ, 8YZ-TPZ, Ce13, Ce85, ZTA20, ZTA30
- Minimum Order Quantity: 1 Ton
- Price: 200-800 USD
- Packaging Details: packed on wooden pallets, with water-proof cover, and tightened with plastic/steel bandages
- Delivery Time: 20-30DAYS
- Payment Terms: TT; L/C
- Supply Ability: 2000tons /month



Product Specification

- Abrasion Resistance: High
- Chemical Resistance: High
- Color: White
- Corrosion Resistance: High
- Creep Resistance: High
- Density: High
- Heat Storage Capacity: High
- Material: Refractory Raw Material
- Melting Point: High
- Refractoriness: High
- Shape: Powder
- Size: Fine
- Slag Resistance: High
- Thermal Conductivity: Low
- Thermal Shock Resistance: High

More Images





Our Product Introd

Product Description

China Factory Wholesale High Quality Zirconia Powder Yttria Stabilized Ultrafine Zirconia Powder

Zirconia has the characteristics of high hardness, high-temperature resistance, chemical corrosion resistance, wear-resistance, small thermal conductivity, strong thermal shock resistance, good chemical stability, outstanding composite material, etc. The properties of the material can be improved by combining nanometer zirconia with alumina and silicon oxide. Nano zirconia is not only used in structural ceramics and functional ceramics. Nano zirconia doped with different elements conductive properties, used in solid battery electrode manufacturing.

Features of High Quality Zirconia Powder:
1. Small particle diameter, narrow distribution range, activity, stable.
2. Excellent liquidity and compactness, easy to mold and sinter.
3. BET and particle size of airflow or granulation one can be controlled on customers's request.

Product Applications of High Quality Zirconia Powder

In recent years, Zirconia Ceramics are increasingly used for biomedical applications . Zirconia is used as a biomaterial. It has advantages over other ceramics because of its high mechanical strength and fracture toughness. Biomaterials have been proposed as artificial bone fillers for repairing bone defects. Zirconia also finds other clinical applications such as: arthroplasty, dental crowns.

Though zirconia and Yttria stabilized Zirconia have orthopedic applications such as hip and knee prostheses, hip joint heads, temporary supports, tibial plates, dental crowns, not much literature reports are available on the studies of this oxide ceramics as drug carriers. etc. Zirconia toughened alumina ceramic foams can be used in potential bone graft applications. Thin films of ZrO2 (Zirconia) have beneficial ceramics properties that offers various possibilities for
Technological application such as optical coating, thermal barrier, catalysis or catalytic supports.

Yttria-stabilized zirconia thin films by dip-coating for IT-SOFC application . Solid oxide fuel cell (SOFC) ceria/yttria stabilized zirconia electrolytes for solid oxide fuel cell applications . Zirconia is used as air-fuel ratio sensors for Progress in Synthesis and Applications of Zirconia 26 automotive applications . To combine the mechanical properties of a high strength inert ceramic with the specific properties of bioactive glasses, composite materials based on high-density zirconia substrates coated by bioactive glasses are reported to be used . Zirconia ceramics can be used for functional as well as structural applications.

Parameters of High Quality Zirconia Powder
(1)Yttrium Stabilized Polycrystalline Ultrafine Zirconia Powder

Item	Classification		
	3YZ-TPZ	5YZ-TPZ	8YZ-T
ZrO_2 wt%	84.3~84.7	90.6~91.0	86~86
Y_2O_3 wt%	5.18~5.22	8.6~9.0	13.3~1
Al_2O_3 ppm	100	0.05~0.45(wt%)	0.05~0.45
Fe_2O_3 ppm	50	50	50
SiO_2 ppm	200	200	200
TiO_2 ppm	50	50	50
Na_2O ppm	50	50	50
K_2O ppm	100	100	100
CeO ppm	100	100	100
MgO ppm	100	100	100
Cr ppm	500	500	500
BET m^2/g	5~30	10~32	10~3
Granularity D50 μm	0.5		
PH	6.5		
Apparent Density g/cm^3	1.15~1.25		

(2) Partially Stabilized Zirconia(PSZ)and Zirconia Toughened Alumina(ZTA)

Item	Specification			
	Ce13	Ce85	ZTA20	
ZrO_2 wt%	86~88	13.5~14.5	18~20	
Y_2O_3 wt%	/	/	1~1.2	
CaO %	0.01			
MgO %	0.01			
CeO_2 %	12~14	84.5~85.5	/	
Al_2O_3 %	0.01		79.5~80.5	
SiO_2 %	0.015			

Fe_2O_3 %	0.002
TiO_2 %	0.005
Na_2O %	0.001
Cr %	0.02
D50 μm	0.5~1
Lgloss %	1.0

(3) High Purity Ultrafine Zirconia Powder

Item	Specification
ZrO_2 wt%	≥99.7
Y_2O_3 wt%	/
Al_2O_3 ppm	100
Fe_2O_3 ppm	50
SiO_2 ppm	200
TiO_2 ppm	100
Na_2O ppm	50
K_2O ppm	100
CeO ppm	100
MgO ppm	100
Cr ppm	500
BET m^2/g	5~15
Granularity D50 μm	0.5
PH	6.5
Apparent Density g/cm^3	0.5~1.0

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