



CLAYDE

ZHONGLONG CHEMICAL POWDER

HIGH DENSITY
HIGH PURITY

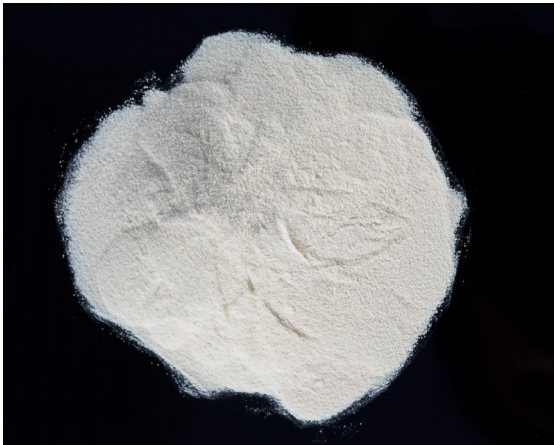
ZIRCONIA CERAMIC

Chemically Inert
Sapphire Hard
Thermal Stability





Yttrium Stabilized Zirconia Powder



Yttrium stabilized zirconia powder is a highly advanced ceramic material that has numerous applications in various industries. It is a composite material that is made by adding yttrium oxide to zirconia powder. The addition of yttrium oxide stabilizes the zirconia crystal structure, making it more resistant to cracking and other forms of deformation.

One of the most significant applications of yttrium stabilized zirconia powder is in the production of dental implants. Its excellent biocompatibility, high strength, and low wear make it an ideal material for use in dental implants. Yttrium stabilized zirconia powder is also used in the production of artificial joints, where its high strength and biocompatibility make it an excellent choice.

Yttrium stabilized zirconia powder is also used in the production of solid oxide fuel cells. Its high ionic conductivity and low thermal expansion coefficient make it an ideal material for use in these applications. Solid oxide fuel cells are a promising technology that can be used to generate electricity with high efficiency and low emissions.

Another application of yttrium stabilized zirconia powder is in the production of oxygen sensors. The material's high ionic conductivity makes it an ideal material for use in these applications. Oxygen sensors are used in various industries, including automotive, aerospace, and medical.

Yttrium stabilized zirconia powder is a highly advanced ceramic material that has numerous applications in various industries. Its unique properties such as high strength, biocompatibility, and low wear make it an ideal material for use in dental implants, artificial joints, solid oxide fuel cells, and oxygen sensors. With ongoing research and development, the potential applications for yttrium stabilized zirconia powder are likely to expand further in the future.

CHARACTERISTICS&PROPERTIES

Item	Chemical component(%)			μm (D50)	Calcination reduction 1g. Loss (1000°C-2h, H ₂ O Containing) %	BET Surface Area m ² /g
	ZrO ₂	Y ₂ O ₃	Al ₂ O ₃			
ZL-3Y(dry pressed, with glue)	≥99.9	≤0.005	≤0.015	0.8±0.1	≤3.0	9.5±1
ZL-3Y (Z) (injection, no glue)	≥99.9	≤0.005	≤0.015	0.8±0.1	≤1.0	9.5±1

The data presented in this paper are intended to help users determine the appropriateness of this material for their application.

PACKAGE

Is packaged by 25kgs / drum. It can be used for a long time, if it is avoided directly to contact with moist environment

APPLICATIONS



Zirconium Silicate



Zirconium silicate powder is a highly versatile material that finds use in a wide range of applications. It is a white, odorless, and tasteless powder that is insoluble in water and most organic solvents. Due to its unique properties, zirconium silicate powder is used in various industries such as ceramics, refractory, and nuclear.

One of the most significant applications of zirconium silicate powder is in the ceramics industry. It is used as an opacifier in ceramic glazes, where it imparts a white, opaque appearance to the glaze. Zirconium silicate powder also enhances the strength and durability of ceramic products, making them more resistant to wear and tear.

In the refractory industry, zirconium silicate powder is used to produce high-temperature-resistant materials such as crucibles, nozzles, and furnace linings. Its high melting point and excellent thermal shock resistance make it an ideal material for these applications.

Zirconium silicate powder is also used in the nuclear industry as a component of fuel pellets in nuclear reactors. Its high melting point, low thermal expansion coefficient, and excellent radiation resistance make it an ideal material for this application.

Zirconium silicate powder is a versatile material that finds use in a wide range of applications. Its unique properties such as high melting point, low thermal expansion coefficient, and excellent radiation resistance make it an ideal material for use in industries such as ceramics, refractory, and nuclear.



CHARACTERISTICS&PROPERTIES

Item	Chemical component(%)			μm (D50)	Degree of whiteness (1200°C*10min)%	Burning loss 1g. Loss (1025°C-2h, H ₂ O Containing) %
	ZrO ₂	Fe ₂ O ₃	TiO ₂			
ZL-S060	≥60	≤0.25	≤0.25	0.8±0.1	≥90	≤0.8
ZL-S064	≥64	≤0.1	≤0.2	0.8±0.1	≥95	≤0.8

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APPLICATIONS





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