



Yttrium Oxide Powder

❖ Product Introduction

Yttrium oxide (Y_2O_3), also known as yttria, is a white, air-stable rare-earth oxide with a high melting point of about 2690 °C and a cubic bixbyite crystal structure. It is insoluble in water but readily dissolves in acids, and features excellent optical transparency, chemical stability, and thermal stability.

❖ Product Characteristics

1. High purity with controllable yttria content and narrow particle-size distribution
2. Excellent optical transparency and outstanding chemical stability
3. High melting point and good high-temperature performance
4. Available in both nano-sized and micron-sized irregular or spherical forms

❖ Product Specifications

Product ID	Formula	Purity	Size	Shape
390800PD001	Y2O3	99.995% (REO)	D50<10 μm	Irregularity
390800PD002	Y2O3	99.999% (REO)	D50<10 μm	Irregularity
390800PD003	Y2O3	99.995% (REO)	< 100 nm	Irregularity
390800PD004	Y2O3	99.999% (REO)	< 100 nm	Irregularity
390800PD005	Y2O3	99.9% (REO)	20 - 63 μm	Spherical
390800PD006	Y2O3	99.995% (REO)	20 - 63 μm	Spherical
390800PDC01	Y2O3	Customized	Customized	Customized

Chemical Compositions (ppm)									
Purity	La2O3	CeO2	Nd2O3	Sm2O3	Pr6O11	Eu2O3	Fe2O3	SiO2	CaO
≥99.9%	≤ 50	≤ 50	≤ 50	≤ 100	≤ 50	≤ 100	≤ 200	≤ 300	≤ 150
≥99.995%	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 100	≤ 150	≤ 50
≥99.999%	≤ 1	≤ 1	≤ 1	≤ 1	≤ 1	≤ 1	≤ 50	≤ 100	≤ 50
<i>Main Content: TREO ≥98.5%. The purity values shown are calculated by subtracting the sum of selected measured elemental impurities from 100%. These values do not represent the result of a full elemental analysis.</i>									

❖ Typical Applications

Yttrium oxide powder is widely used in phosphor materials, advanced ceramics, laser materials, electronic components, and optical coatings.

❖ Packaging

Outer packaging: carton or fiber drum.

Inner packaging: double vacuum-sealed bags.

Packing specification: 1 kg/bag or 25 kg/drum.

Customized packaging is available upon request.

❖ Storage

During transportation and storage, avoid moisture, contamination and direct sunlight. Keep away from fire sources and corrosive substances. Use the bag as soon as it is opened. The shelf life is no more than 24 months from the production date.

❖ Custom specifications are available, including

- Higher purity
- Narrower Particle Size Distribution
- Special Mesh Size Screenings

❖ Cautions

This product may cause mild irritation to skin, eyes, and respiratory tract upon contact or inhalation of dust. Use appropriate protective equipment and ensure adequate ventilation; avoid generating or breathing dust.

Disclaimer

The information provided herein is for reference only and represents typical data, not guaranteed minimum or maximum specification values. It should not be used as a basis for final product design or specific application decisions. All data are subject to change without prior notice.

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