



LANTHANUM

OXIDE POWDER

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LANTHANUM

OXIDE POWDER

Lanthanum oxide is used in optical materials; often the optical glasses are doped with La_2O_3 to improve the glass' refractive index, chemical durability, and mechanical strength. La_2O_3 is used to make optical glasses, to which this oxide confers increased density, refractive index, and hardness. Together with oxides of tungsten, tantalum, and thorium, La_2O_3 improves the resistance of the glass to attack by alkali. La_2O_3 is an ingredient for the manufacture of piezoelectric and thermoelectric materials. Automobile exhaust-

gas converters contain La_2O_3 . La_2O_3 films can be deposited by many different methods, including chemical vapor disposition, atomic layer deposition, thermal oxidation, sputtering, and spray pyrolysis. Depositions of these films occur in a temperature range of 250–450 °C. Polycrystalline films are formed at 350 °C. La_2O_3 tungsten electrodes are replacing thoriated tungsten electrodes in Gas tungsten arc welding (TIG) due to safety concerns with thorium's radioactivity.

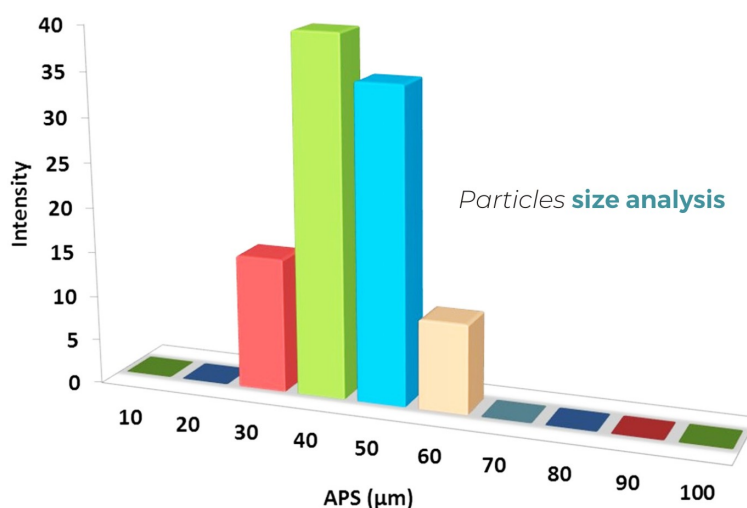


Quick FACTS

Product	: Lanthanum Oxide Powder
Stock No	: NS6130-05-571
CAS	: 1312-81-8
Color	: White
Form	: Powder

APPLICATIONS

- ✓ Optical materials
- ✓ La-Ce-Tb phosphors for fluorescent lamps
- ✓ Dielectric and conductive ceramics
- ✓ Barium titanate capacitors



Additional Powder Characteristics

Stock No.	Purity	APS
NS6130-05-571	99%	40-50nm

Technical Specification

Molecular Formula	Molecular Weight	Density	Melting Point	Boiling Point
La ₂ O ₃	325.809 g/mol	6.51 g/cm ³	2315 °C	4200 °C

Chemical Composition

Product	Weight Percent (nominal)	
	La ₂ O ₃	Other Metal
Lanthanum Oxide Powder	99%	0.1%

Properties

- ✓ Chemical Formula: La₂O₃
- ✓ CAS No.: 1312-81-8

Ordering Information and Stock Availability

- ✓ Product: Lanthanum Oxide Powder
- ✓ Stock Availability: Available
- ✓ Distribution: Global
- ✓ Packing Sizes: 25Gms, 50Gms, 100Gms, 500Gms & Bulk Orders

Handling Recommendations

- ✓ Store in the original container in a dry location.
- ✓ Tumble contents prior to use to prevent segregation.
- ✓ Open containers should be stored in a drying oven to prevent moisture pickup.

Safety Recommendations

Download MSDS/SDS NS6130-05-507A

are available from the Nanoshel

Website at

<https://www.nanoshel.com/product/lanthanum-oxide-powder>