

# Samarium

Oxide Powder



APS 40-50μm







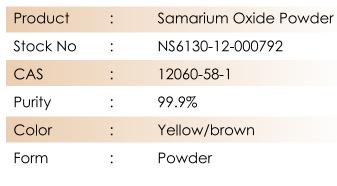


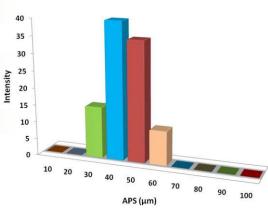


Cobalt (II, III) oxide is an inorganic compound with the chemical formula Co3O4. It is a black antiferromagnetic solid and commercial ceramic grades of cobalt oxide will often produce glaze specking. Cobalt oxide is typically insoluble in aqueous solutions (water) and extremely stable. Because of its stability, it is useful in ceramic structures such as simple as producing clay bowls to advanced electronics and in lightweight structural components in aerospace and electrochemical applications, for instance, fuel cells in which they manifest ionic conductivity.

This powder is utilized in lithium-ion batteries. It is also applied in glass, ceramics, inks, paints, and varnishes. It is also utilized as electroplating for its attractive appearance. Cobalt Oxide is used in glazes, glass, and enamels and it the most powerful ceramic colorant. Cobalt oxide is employed as an electrode in lithium-ion batteries, in the form of cobalt nanoparticles.

#### Quick Facts





## Technical Specification

Formula	APS	Molecular Weight	Melting Point
Sm₂O₃	40-50µm	348.72 g/mol	2325 °C

### Chemical Composition

Product	Weight Percent (nominal)	
	Sm₂O₃	Other Metal
Samarium Oxide Powder	99.9%	0.1%

### **Applications**

- Dielectric resonators and substrates
- Capacitors, gas sensors and structural and shielding parts used in nuclear piles
- Solid state electrolyte in carbon dioxide gas sensors









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