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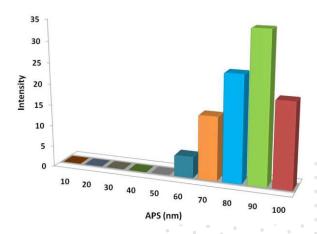
Nanoparticle research is an area of strong scientific interest due to the variety of potential applications in optical, biomedical, and electronic fields. Aluminium oxide is responsible for metallic aluminum's resistance to weathering. Metallic aluminium is very reactive with atmospheric oxygen, and a thin passivation layer of alumina quickly forms on any exposed aluminium surface. This layer protects the metal from further oxidation. The thickness and properties of this oxide layer can be enhanced using a process called anodizing.



Product	ALUMINIUM Oxide Nanopowder
Stock No	NS6130-03-300 to NS6130-03-303
CAS	1344-28-1
Color	White
Form	Powder
Symbol	Al2O3
Group	13

Electronic Configuration:

[Ne] 3s2 3p1



ADDITIONAL POWDER CHARACTERISTICS

Stock No.	Purity	APS
NS6130-03-300	99.9%	<100nm
NS6130-03-301	99.9%	80nm
NS6130-03-302	99.9%	20nm
NS6130-03-303	99%	20nm

TECHNICAL SPECIFICATION

	Molecular Formula	Molecular Weight	Density	Melting Point
0	Al_2O_3	101.96 g/mol	2072 g/cm ³	2072°C

CHEMICAL COMPOSITION

Product	Weight Percent (nominal)		
		Other Metal	
ALUMINIUM Oxide Nanopowder	99.9%	1000ppm	
	99%	10000ppm	

APPLICATIONS

- > Dispersion-strengthening
- > Nanocomposites
- > Catalyst support
- > Transparent conductive coatings
- > Biomaterials
- > Heat-transfer fluids (suspensions)
- > Drug delivery
- > Sources for IC board or package
- > Transparent optical coatings
- > Wear-resistant additives
- > Material surface coatings







ISO 9001:2015 CERTIFIED COMPANY