

Purity

>99.9%

CAS No.

1302-93-8





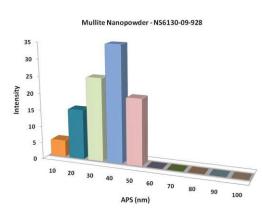


Mullite Nanoparticles

Mullite is becoming increasingly significant in electronic, optical, and high-temperature structural applications. Mullite is one of the main raw materials for the ceramic industry. It is an input for the production of refractory

materials, catalyst support, electronic and optic devices. It is also used in thermal insulators, hot gas filters and biological and biomedical scaffolds. Its synthesis is a complex set of high-temperature and solid state reactions between silica (SiO2) and alumina (Al2O3) based on the mutual diffusion of Al3+, Si4+ and O-2 ions amongst particles.

It is an economically important material as a structural ceramic given that it retains a significant fraction of its room temperature strength at high



temperatures, and strongly resists thermal shock, corrosion, and creep. Its low dielectric and thermal expansion coefficients suggest its use in electronic packaging applications. It is also used in composites and from the combination of mullite properties, mullite/alumina composites have been long regarded as a composite system of high promise for high-performance, high temperature structural materials.

Technical Specification:

Standard Plate Count	Yeast and Mould Count	Density	рН	Silver coating
≤200 cfu/g	≤100 cfu/g	3.16 g/cm ³	6.5 ∼6.8	2-3Wt%

Chemical Composition

Product	Weight Percent (nominal)		
		Other Metal	
Mullite Nanoparticles	>99.9%	8000 ppm	

Applications:

- √ Electronic packaging applications
- √ Refractory materials
- √ Catalyst support
- √ Electronic and optic devices
- ✓ Thermal insulators
- √ Hot gas filters
- Biological and biomedical scaffolds

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