

## Aluminum Oxide Nanoparticle (Al<sub>2</sub>O<sub>3</sub>, alpha, 99+%, 80 nm)

**Stock #:** US3008

Please click [here](#) for price information.

### Details:

Aluminum Oxide Nanopowder (alpha)

Purity: 99+%

APS: 80 nm

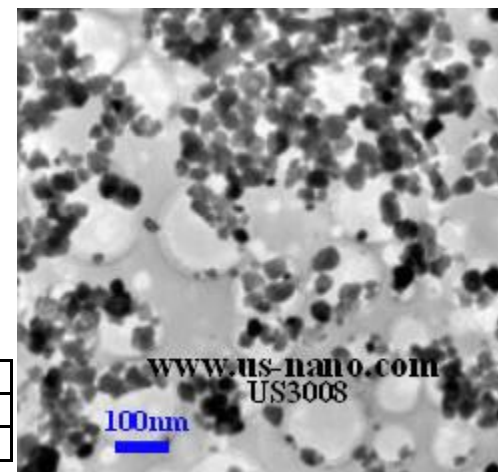
SSA: >15 m<sup>2</sup>/g

Morphology: nearly spherical

Color: white

Crystallographic Structure: rhombohedral

Certificate of Analysis						
Al <sub>2</sub> O <sub>3</sub>	Ca	V	Cl	Na	Mn	Co
≥99%	≤20ppm	≤5ppm	≤280ppm	≤30ppm	≤5ppm	≤5ppm



### Features:

α-phase ultrafine Al<sub>2</sub>O<sub>3</sub>: phase stability, high hardness, materials with high dimensional stability, it is widely used in a variety of plastics, rubber, ceramics, refractory products for reinforcement toughening, in particular, significantly to improve the ceramic density, finish, thermal fatigue resistance, fracture toughness, creep resistance and wear resistance. As the α-phase ultrafine Al<sub>2</sub>O<sub>3</sub> is a high performance material of far infrared emission, it is widely used in fiber fabric products and high pressure sodium lamp as far-infrared emission and thermal insulation materials. In addition, α-phase nano-Al<sub>2</sub>O<sub>3</sub> with high resistivity and good insulation property, it is widely used as the main components for YGA laser crystal and integrated circuit substrates.

### Applications:

1. transparent ceramics: high-pressure sodium lamps, EP-ROM window; 2. cosmetic filler; 3. single crystal, ruby, sapphire, sapphire, yttrium aluminum garnet; 4. high-strength aluminum oxide ceramic, C substrate, packaging materials, cutting tools, high purity crucible, winding axle, bombarding the target, furnace tubes; 5. polishing materials, glass products, metal products, semiconductor materials, plastic, tape, grinding belt; 6. paint, rubber, plastic wear-resistant reinforcement, advanced waterproof material; 7. vapor deposition materials, fluorescent materials, special glass, composite materials and resins; 8. catalyst, catalyst carrier, analytical reagent; 9. aerospace aircraft wing leading edge.

[MSDS](#)

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