

## High-purity Alpha Aluminum Oxide Powder ( $\alpha$ -Al<sub>2</sub>O<sub>3</sub>)

Specification	Unit	Typical
Al <sub>2</sub> O <sub>3</sub>	%	99.6
$\alpha$ -Al <sub>2</sub> O <sub>3</sub>	%	94.5
SiO <sub>2</sub>	%	0.058
Fe <sub>2</sub> O <sub>3</sub>	%	0.012
Na <sub>2</sub> O	%	0.287
LOI	%	0.042

This product is a high-purity alpha aluminum oxide powder ( $\alpha$ -Al<sub>2</sub>O<sub>3</sub>) with a typical Al<sub>2</sub>O<sub>3</sub> content of 99.6% and  $\alpha$ -phase content of approximately 94.5%, while levels of SiO<sub>2</sub>, Fe<sub>2</sub>O<sub>3</sub> and LOI are extremely low.

The material exhibits very high hardness and outstanding abrasion resistance, making it suitable for use in wear-resistant ceramics, abrasive tools and protective coatings.

The product offers excellent thermal stability with a melting point of about 2045–2050 °C, enabling reliable performance in high-temperature and thermally cycled industrial environments.

Due to its superior electrical insulating properties combined with good thermal conductivity, this grade is recommended for electronic substrates, insulating components and thermal management applications.

Controlled particle size distribution (from sub-micron to several microns, depending on grade) allows tailoring of rheology and sintering behavior, providing flexibility for use in advanced ceramics, refractories, composites and coating formulations.