GNPGraystar
Specialty Materials
AN ISO 9001 CERTIFIED COMPANY

TECHNICAL DATA SHEET
Precision Calcined Alumina

Typical Chemistry

Aluminum Oxide (Al_2O_3)	99.59 %
Silicon Dioxide (SiO_2)	0.03 %
Sodium Dioxide (Na_2O)	0.35 %
Iron Oxide (Fe_2O_3)	0.03 %

Physical Characteristics

Crystal Form	Monocrystalline Alpha Alumina
Shape:	Hexagonal Platelets
True Density	3.95 g/cm^3
Melting Point	2000°C
Hardness	Knoop (100): 2100 Mohs: 9.0
pH	7.5 - 11

Sizing Available (in Microns)

1, 3, 5, 7, 9, 12, 15, 18, 20, 25, 30, 40, and 50
Suspension treatment available for water and oil-based lapping applications.

Description:

GNPGraystar's Precision Calcined Alumina is aluminum oxide that has been heated at temperatures in excess of 1,050°C (1,922°F) to drive off nearly all chemically combined water. In this form, alumina has great chemical purity, extreme hardness (9 on the Mohs hardness scale, on which diamond is 10), high density, and a high melting point (slightly above 2,000°C [3,632°F]).

Applications:

GNPGraystar's Precision Calcined Alumina is used primarily for lapping and polishing of various products including precision optics, piezo electronics, precision bearings, optical glass, sime-conductor quartz, stainless steel, Gallium Arsenide, Germanium, and more.

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