



GNPGraystar

Specialty Materials

TECHNICAL DATA SHEET

Black Aluminum Oxide

Typical Chemistry

	General	Special
Aluminum Oxide (Al_2O_3)	$\geq 62\%$	$\geq 80\%$
Iron Oxide (Fe_2O_3)	6 - 12 %	4 - 8 %
Silica Dioxide (SiO_2)	$\leq 25\%$	$\leq 10\%$
Titanium (TiO_2)	2 - 4 %	2 - 4 %

Physical Characteristics

Color:	Black
Crystal Form:	Trigonal System
True Density:	$\geq 3.50 \text{ g/cm}^3$
Melting Point:	2050°C
Hardness:	8.0-9.0 (Mohs) 2000-2200 kg/mm ² (Vickers)

General Black Aluminum Oxide Sizing

3-5 mm, 1-3 mm, 0.4-1.0 mm, 0-1 mm
F12-F400 Grit (FEPA F: 42-2:2006)
Other Sizes are Available Upon Request

Special Black Aluminum Oxide Sizing

Grits: F46 - F240 (FEPA F: 42-2:2006)
Powders: F280-F1000 Grit (FEPA F: 42-2:2006)
Other Sizes are Available Upon Request

Description:

GNPGraystar's Black Aluminum Oxide is produced by fusing bauxite, iron oxide, and other elements in an arc-furnace. The resulting product has a moderate hardness, high toughness, high temperature resistance, good thermal stability, and excellent self-sharpening.

Applications:

GNPGraystar's Black Aluminum Oxide, due to its thermal stability and low heat generation when polishing, is used to polish metal pieces, especially stainless steel, producing a high smooth finish with little surface discoloration. It is also used in resin bonded abrasives, blasting applications, as anti-skid surfacing material, abrasive belts, flap wheels, fiber wheels, and other polishing & lapping applications.

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