



# GNP Graystar

Specialty Materials



## TECHNICAL DATA SHEET

### Black Aluminum Oxide

#### Typical Chemistry

	General	Special
Aluminum Oxide ( $\text{Al}_2\text{O}_3$ )	$\geq 62\%$	$\geq 80\%$
Iron Oxide ( $\text{Fe}_2\text{O}_3$ )	6 - 12 %	4 - 8 %
Silica Dioxide ( $\text{SiO}_2$ )	$\leq 25\%$	$\leq 10\%$
Titanium ( $\text{TiO}_2$ )	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 <sup>2</sup> (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:

GNP Graystar'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:

GNP Graystar'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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