

# GRAYSTAR LLC

A Manufacturer and Distributor of  
Abrasive Materials and Specialty Products

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## Technical Data Sheet

**Product:** Brown Fused Aluminum Oxide Powders (Microgrits)

**Description:** Aluminum Oxide is manufactured in an electric arc furnace that produces an extremely tough, high bulk density grain which is graded to exacting standards. By water classifying and chemically treating, our powders can be used in the most critical of applications.

**Applications:** Aluminum Oxide powders are used for micro blasting, precision lapping, fine grit grinding wheels, break lining fillers, tumbling, polishing compounds, etc.

**Typical Chemical Analysis:**

Aluminum Oxide (Al <sub>2</sub> O <sub>3</sub> )	94.1%
Titanium Dioxide (TiO <sub>2</sub> )	3.9%
Silicon Dioxide (SiO <sub>2</sub> )	1.15%
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	0.39%
Others (MgO, CaO, Cr <sub>2</sub> O <sub>3</sub> )	0.46%

**Physical Characteristics:**

Crystal Form:	Alpha-Alumina
True Density:	3.95 g/cm <sup>3</sup>
Hardness:	Mohs 9.0
Melting Point:	2000°C
Color:	Brown - Tan

**Sizing Test Methods:**

FEPA Standard 42-2: 2006  
JIS R 6001 - 1998  
Micron sizes based on Coulter Multisizer

**Packaging & Shipping:**

Warehousing in Bluffton, SC and Niagara Falls, NY  
55 lb. paper bags  
325 lb. fiber drums (grade sizes F280 – F500)  
250 lb. fiber drums (grade sizes F600 – F800)  
2200 lb supersacks  
Plastic pails, sealed bags, etc. for a surcharge (SC only)

**Products Available:**

FEPA F240 – F1200  
JIS #240 - #8000  
Micron/Optical sizes 50.0um – 1.0 um

**Certifications Available:**

FEPA  
JIS  
Agency and Mil-specs

**FEPA F Standard – Powders/Microgrits**

<u>Size</u>	<u>D3%</u>		<u>D94%</u>
	<u>Max.</u>	<u>D50%</u>	<u>Min.</u>
240	70	42.5-46.5	28
280	59	35.0-38.0	22
320	49	27.7-30.7	16.5
360	40	21.3-24.3	12
400	32	16.3-18.3	8
500	25	11.8-13.8	5
600	19	8.3-10.3	3
800	14	5.5-7.5	2
1000	10	3.7-5.3	1
1200	7	2.5-3.5	1(80%)