

# GRAYSTAR LLC

A Manufacturer and Distributor of  
Abrasive Materials and Specialty Products

Headquarters  
9 Simmonsville Rd  
PO Box 1670  
Bluffton, SC 29910

Phone: 843-815-5600  
Fax: 843-815-5601  
www.graystarllc.com

## Technical Data Sheet

**Product:** Green Silicon Carbide Powders (Microgrits)

**Description:** High quality, water classified silicon carbide powders graded to exacting standards, e.g. FEPA, JIS and custom. Graystar silicon carbide powders are manufactured by various techniques to optimize shape, surface area, density, chemistry and/or particle size distribution for various applications.

**Applications:** Our powders are used for wiresawing semiconductor materials, lapping, fine bonded and coated application, refractory, precision ceramics, composites and other critical applications. Material is available for hot pressing, sintering and other forming techniques.

**Typical Chemical Analysis:**

Silicon Carbide (SiC)	99.15%
Silicon (Si)	0.14%
Silicon Dioxide (SiO <sub>2</sub> )	0.34%
Carbon (C)	0.11%
Iron (Fe)	0.09%

**Physical Characteristics:**

Crystal Form:	Alpha-Alumina
True Density:	3.95 g/cm <sup>3</sup>
Hardness:	Knoop (100) – 2500; Mohs 9.0+
Melting Point:	SiC does not melt but dissociates
Color:	Green

**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  
50 lb. or 55 lb. paper bags (grade sizes F280 – F1200)  
44 or 55 lb. paper bags or boxes (JIS #600 - #4000)  
300 lb. fiber drums (grade sizes F280 – F600)  
200 lb. fiber drums (grade sizes F800 – F1200)  
2200 lb. supersacks  
Plastic pails, etc for a surcharge (SC only)

**FEPA F Standard – Powders/Microgrits**

	D3%		D94%
Size	Max.	D50%	Min.
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%)