

GRAYSTAR[★]LLC

Ceramic Minerals and Specialty Materials

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Technical Data Sheet

Product: Black Silicon Carbide- Bonded Abrasives and General Industrial

Description: Black silicon carbide is produced in electrical internal resistance furnaces from high purity silica sand and petroleum coke. Its combination of being very hard and sharp makes it a very aggressive abrasive ideal for many applications.

Applications: Black SiC is typically used on hard or brittle materials. It is also used for kiln furniture, lapping and polishing, non-woven, tumbling, pressure blasting, anti-skid, electrical heating elements, aerospace, composites, etc.

Typical Chemical Analysis:

Silicon Carbide (SiC)	97.80%
Free Silicon (Si)	0.65%
Free Silica (SiO ₂)	0.59%
Iron (Fe)	0.12%
Free Carbon (C)	0.29%

Physical Characteristics:

Crystal Form:	Hexagonal (Alpha SiC)
True Density:	3.21 g/cm ³
Hardness:	Knoop (100) 2500 kg/mm, Mohs 9.2
Melting Point:	SiC does not melt but dissociates
Color:	Black

ANSI Test Methods:

Chemistry:	B74.15
Sizing:	B74.12
Bulk Density:	B74.4

Packaging & Shipping:

Warehousing in Bluffton, SC and Niagara Falls, NY
50 lb. or 55 lb. paper bags
300 lb. fiber drums grade sizes 8 – 240
2000 lb. supersacks
Plastic pails, etc. for a surcharge (SC only)

Bulk Density (g/cm³):

Grit	BD	Grit	BD
8	1.42 - 1.54	60	1.46 - 1.58
10	1.42 - 1.54	70	1.45 - 1.57
12	1.45 - 1.57	80	1.44 - 1.56
14	1.46 - 1.58	90	1.43 - 1.55
16	1.47 - 1.59	100	1.42 - 1.54
20	1.50 - 1.62	120	1.41 - 1.53
24	1.50 - 1.62	150	1.39 - 1.51
30	1.50 - 1.62	180	1.37 - 1.51
36	1.49 - 1.61	220	1.35 - 1.47
46	1.49 - 1.61	240	1.35 - 1.47
54	1.47 - 1.59		

Certifications Available:

ANSI and FEPA
All Mil-specs

Manufacturers and Distributors of Abrasive Materials