



SPECIALISTS IN
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Microgrit-SiC Silicon Carbide Powders and Grains

Micro Abrasives Corporation is proud to be the master supplier of Silicon Carbide powders and grains in the U.S. market. Micro Abrasives has long since been regarded as a world leader in the sales of Silicon Carbide. With over 50 years' experience in manufacturing of abrasive products, we are one of the US leaders in this industry. Our technical staff is always available to assist you in your Silicon Carbide applications.

Micro Abrasives SiC products:

- Silicon Carbide **Green**
- Silicon Carbide **Black**
- SiC Macro and Microgrits graded according to FEPA-F and ANSI Table #3 standards
- SiC various custom sizes

Physical Data

Structure:	Monocrystalline
Particle Shape:	Blocky, Sharp
Color:	Black and Green
Friability:	Semi-Friable
Knoop hardness:	2480
Bulk density:	ANSI B74. 12-1988
Specific gravity :	3.20

Typical Chemical Analysis

	<u>Black SiC</u>	<u>Green SiC</u>
SiC	97.0 % Min.	99.0% Min.
SiO ₂	.5%	.4%
Si	.3%	.25%
Fe	.1%	.05%
Al	.15%	-
Mn	.15%	-
C	.3%	.2%

Table 1. Grain size distribution of microgrits F320 to F1200

Grit Designation	D10 Min. value	d50 APS	d90 Max. value
F320	19.5	33.50-38.50	62.50
F360	14.75	25.3-29.90	47.90
F400	11.95	20.30-24.15	39.45
F500	8.80	15.50-17.35	28.30
F600	7.35	12.65-14.55	23.9
F800	3.90	8.05-9.35	16.00
F1000	1.70	5.65-7.05	13.30
F1200	1.30	4.20-4.95	11.55

These values apply to measurement by means of laser diffraction (Malvern), and have been correlated to the values in FEPA standard 42-D-1984 R2006 and ISO 8486.

Table 3 ANSI

Grit No.	Sieve ¹⁾ through which 100% must pass	Control Sieve ¹⁾		Maximum of over-size on control sieve ¹⁾	Minimum through control sieve and retained		Cumulative minimum through control sieve and retained		Maximum of 5% through sieve No. ¹⁾
		No.	opening inches	%	%	on sieve No. ¹⁾	%	on sieve No. ¹⁾	
16	8	14	0.056	25	35	16	70	16 and 18	25
20	10	16	0.047	25	35	18	70	18 and 20	30
24	14	18	0.039	25	35	20	60	20 and 25	40
30	16	20	0.033	30	45	30	60	30 and 35	45
36	18	25	0.028	15	50	35	80	35 and 40	50
46	25	40	0.017	30	30	45	55	45 and 50	70
54	30	45	0.014	35	25	50	60	50 and 60	80
60	35	50	0.012	35	35	60	60	60 and 70	100
70	40	60	0.010	25	35	70	65	70 and 80	120
80	45	70	0.008	35	30	80	60	80 and 100	140
90	50	80	0.007	25	35	100	60	100 and 120	170
100	60	100	0.006	25	30	120	55	120 and 140	230
120	70	120	0.005	25	20	140	50	140 and 170	270
150	80	140	0.004	25	30	200	60	200 and 230	325
180	80	170	0.004	20	30	200 and 230	60	200, 230 and 270	—
220	100	200	0.003	15	30	230 and 270	50	230, 270 and 325	—
240	120	200	0.003	10	5	230 and 270	30	230, 270 and 325	—

The data quoted in this line card are typical for the material. They are intended as a guide and should not be used in preparing specifications. The product data may deviate from the figures given and represent our latest findings.