

BLACK SILICON CARBIDE

Product Information



SIC used for Coated Abrasives Application

Black Silicon Carbide is fused by high purity silica sand and carbon in a big electrical resistance furnace at high temperature. The grains of SIC are big crystals, extremely hard, sharp, and friable, with outstanding high abrasion resistance and low thermal expansion, which make SIC products sharper, cut faster and produce finer scratch patterns on most surfaces, particularly suitable for high quality coated abrasives, such as sanding paper, sanding cloth, sanding belt, flap-wheel ... for surface preparation and finishing.



Physical Properties

Crystal Form	:	Alpha SiC
Particle Shape	:	Blocky, Sharp edged
Color	:	Black
Friability	:	Semi-friable
Melting Point	:	Dissociates at Approx. 2500°C
Bulk Density	:	1.20-1.60g/cm ³
True Density	:	3.20g/cm ³ Min
Mohs Hardness	:	9.1
Knoop Hardness	:	2550kg/mm ²

Particle Size Distribution for available grits

FEPA standard 43-1:2006

Macro Grits			Micro Grits		
Grit no.	Mean Diameter(μm)	B.D(g/cm ³)	Grit no.	Ds50-value(μm)	B.D (g/cm ³)
P12	1815	1.45-1.58	P240	58.5 \pm 2	1.34-1.44
P16	1324	1.44-1.56	P280	52.2 \pm 2	1.31-1.43
P20	1000	1.43-1.54	P320	46.2 \pm 1.5	1.30-1.40
P24	764	1.45-1.55	P360	40.5 \pm 1.5	1.22-1.38
P30	642	1.47-1.57	P400	35.0 \pm 1.5	1.22-1.38
P36	538	1.48-1.58	P500	30.2 \pm 1.5	1.20-1.38
P40	425	1.49-1.59	P600	25.8 \pm 1	1.17-1.33
P50	336	1.48-1.58	P800	21.8 \pm 1	1.13-1.29
P60	269	1.47-1.57	P1000	18.3 \pm 1	1.06-1.22

P80	201	1.44-1.54	P1200	15.3 ± 1	1.00-1.16
P100	162	1.41-1.52	P1500	12.6 ± 1	0.87-1.03
P120	125	1.38-1.54	P2000	10.3 ± 0.8	0.77-0.93
P150	100	1.40-1.50	P2500	8.4 ± 0.5	0.77-0.93
P180	82	1.36-1.46			
P220	68	1.35-1.45			

Chemical Composition

Type & Grade	Grit Size	Chemical Composition (% by weight)			B. D.(g/cm ³)
		SiC	F.C	Fe ₂ O ₃	
C-P	P12-P100	≥98.5	≤0.10	≤0.15	1.43-1.62
	P120-P220	≥98.0	≤0.20	≤0.30	1.35-1.55
	P240-P2500	≥97.5	≤0.30	≤0.40	1.00-1.47

Grain and Grit Sizes

We offer Black SiC both Macro and Micro grains complying with the current FEPA / JIS / ANSI sieve standards.

For Coated Abrasives Application:

FEPA P

Macro :P16,P20, P24, P30, P36, P40, P50, P60, P80, P100, P120, P150, P180, P220

Micro:P240, P280, P320, P360, P400, P500, P600, P800, P1000, P1200, P1500, P2000, P2500

Packaging

Standard Packaging:

- Big bags(1000kgs , 1250kgs, 1350kgs.) with or without pallets;
- 20 or 25kg plastic.or paper bags, with or without pallets.

*Custom Packaging is available upon request.



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