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TECHNICAL DATA SHEET

BLACK SILICON CARBIDE

Black Silicon Carbide is produces in electrical internal resistance furnaces from high purity silica sands petroleum coke,its combination of being very hard and sharp makes it a very aggressive abrasive

PHYSICAL PROPERTIES

Specific Weight	3.95 g/ cm^3
Mohs Hardness	9.15
Maximum service temperature	1900℃
Melting Point	2250℃

1,Used for abrasives,blasting,grinding,ceramic,rust removal,surface treatment, floor coating,abrasion resistant layer etc

TYPICAL CHEMICAL ANALISIS [%]

SiC	Fe_2O_3	F.C	F.Si	SiO_2	LOI
⩾98.5	⩽0.10	⩽0.20	⩽0.20	⩽0.50	< 0.05

PARTICLE SIZE DISTRIBUTION

F8	+4000um	0	+2800um	≤20%	+2360um	≥45%	+2360+2000um	≥70%	-1700um	≤3%
F10	+3350um	0	+2360um	≤20%	+2000um	≥45%	+2000+1700um	≥70%	-1400um	≤3%
F12	+2800um	0	+2000um	≤20%	+1700um	≥45%	+1700+1400um	≥70%	-1180um	≤3%
F14	+2360um	0	+1700um	≤20%	+1400um	≥45%	+1400+1180um	≥70%	-1000um	≤3%
F16	+2000um	0	+1400um	≤20%	+1180um	≥45%	+1180+1000um	≥70%	-850um	≤3%
F20	+1700um	0	+1180um	≤20%	+1000um	≥45%	+1000+850um	≥70%	-710um	≤3%
F22	+1400um	0	+1000um	≤20%	+850um	≥45%	+850+710um	≥70%	-600um	≤3%
F24	+1180um	0	+850um	≤25%	+710um	≥45%	+710+600um	≥65%	-500um	≤3%
F30	+1000um	0	+710um	≤25%	+600um	≥45%	+600+500um	≥65%	-425um	≤3%
F36	+850um	0	+600um	≤25%	+500um	≥45%	+500+425um	≥65%	-355um	≤3%
F46	+600um	0	+425um	≤30%	+355um	≥40%	355+300um	≥65%	-250um	≤3%
F54	+500um	0	+355um	≤30%	+300um	≥40%	+300+250um	≥65%	-212um	≤3%
F60	+425um	0	+300um	≤30%	+250um	≥40%	250+212um	≥65%	-180um	≤3%
F70	+355um	0	+250um	≤25%	+212um	≥40%	+212+180um	≥65%	-150um	≤3%
F80	+300um	0	+212um	≤25%	+180um	≥40%	+180+150um	≥65%	-125um	≤3%
F90	+250um	0	+180um	≤20%	+150um	≥40%	+150+125um	≥65%	-106um	≤3%
F100	+212um	0	+150um	≤20%	+125um	≥40%	+125+106um	≥65%	-75um	≤3%

F120	+180um	0	+125um	≤20%	≥40%	≥40%	+106+90um	≥65%	-63um	≤3%
F150	+150um	0	+106um	≤15%	+75um	≥40%	+75+63um	≥65%	-45um	≤3%
F180	+125um	0	+90um	≤15%	+75um	*	+75+63um	≥40%	-53um	*
F220	+106um	0	+75um	≤15%	+63um	*	+63+53um	≥40%	-45um	*

2.Used for Grinding,polishing,lapping,whetstone,polishing pads,ceramic membrance etc

TYPICAL CHEMICAL ANALISIS [%]

SiC	Fe_2O_3	F.C	F.Si	SiO_2	LOI
98.0-99.5	≤0.15	≤0.30	≤0.40	≤0.70	< 0.09

PARTICLE SIZE DISTRIBUTION

HAPTER Ⅰ （JIS STANDARD）

Size	D_O(um)	D_3(um)	D_{50}(um)	D_{94}(um)
#240	≤127	≤103	57.0±3.0	≥40
#280	≤112	≤87	48.0±3.0	≥33
#320	≤98	≤74	40.0±2.5	≥27
#360	≤86	≤66	35.0±2.0	≥23
#400	≤75	≤58	30.0±2.0	≥20
#500	≤63	≤50	25.0±2.0	≥16
#600	≤53	≤41	20.0±1.5	≥13
#700	≤45	≤37	17.0±1.5	≥11
#800	≤38	≤31	14.0±1.0	≥9.0
#1000	≤32	≤27	11.5±1.0	≥7.0
#1200	≤27	≤23	9.5±0.8	≥5.5
#1500	≤23	≤20	8.0±0.6	≥4.5
#2000	≤19	≤17	6.7±0.6	≥4.0
#2500	≤16	≤14	5.5±0.5	≥3.0
#3000	≤13	≤11	4.0±0.5	≥2.0
#4000	≤11	≤8.0	3.0±0.4	≥1.8
#6000	≤8.0	≤5.0	2.0±0.4	≥0.8
#8000	≤6.0	≤3.5	1.2±0.3	≥0.6

CHAPTER Ⅱ （FEPA STANDARD）

Size	D_3(um)	D_{50}(um)	D_{94} （um）
F230	< 82	53.0±3.0	>34
F240	< 70	44.5±2.0	>28
F280	< 59	36.5±1.5	>22
F320	< 49	29.2±1.5	>16.5
F360	< 40	22.8±1.5	>12
F400	< 32	17.3±1.0	>8

F500	< 25	12.8±1.0	>5
F600	< 19	9.3±1.0	>3
F800	< 14	6.5±1.0	>2
F1000	< 10	4.5±0.8	>1
F1200	< 7	3.0±0.5	>1(at 80%)
F1500	< 5	2.0±0.4	>0.8(at 80%)
F2000	< 3.5	1.2±0.3	>0.5(at 80%)

Mainly Applications

-Bonded Abrasives and Coated abrasives

-Blasting,surface Treatment,Rust Removal

-Wet and dry blast media,grinding and polishing etc

-Floor/Wall laminates,Wear-resistant

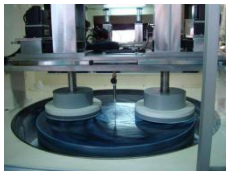
-Ceramic products: Ceramic and Tiles,Ceramic filter plate,ceramic membrane etc

-Teflon painting etc

- Heat insulating material

-Grinding wheels,Cup wheels,Whetstone,polishing pads etc

-Used for crucibles, parts for kiln burning, mechanical seals, and parts materials to produce semiconductors

PACKAGING