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TECHNICAL DATA SHEET

GREEN SILICON CARBIDE

Green Silicon Carbide is an extremely hard (Knoop 2600 or Mohs 9.4) man made mineral that possesses high thermal conductivity (100 W/m-K). It also has high strength at elevated temperatures (at 1000°C, Green SiC is 7.5 times stronger than Al2O3). Green SiC has a modulus of elasticity of 410 GPa, with no decrease in strength up to 1600°C, and it does not melt at normal pressures but instead dissociates at 2815.5°C. .

PHYSICAL PROPERTIES

Specific Weight	3.18 g/ cm^3
Mohs Hardness	9.4
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
⩾99.0	⩽0.40	⩽0.20	⩽0.20	⩽0.50	< 0.05

PARTICLE SIZE DISTRIBUTION

#8	+4000um	0	+2800um	≤20%	+2360um	≥45%	+2360+2000um	≥70%	-1700um	≤3%
#10	+3350um	0	+2360um	≤20%	+2000um	≥45%	+2000+1700um	≥70%	-1400um	≤3%
#12	+2800um	0	+2000um	≤20%	+1700um	≥45%	+1700+1400um	≥70%	-1180um	≤3%
#14	+2360um	0	+1700um	≤20%	+1400um	≥45%	+1400+1180um	≥70%	-1000um	≤3%
#16	+2000um	0	+1400um	≤20%	+1180um	≥45%	+1180+1000um	≥70%	-850um	≤3%
#20	+1700um	0	+1180um	≤20%	+1000um	≥45%	+1000+850um	≥70%	-710um	≤3%
#22	+1400um	0	+1000um	≤20%	+850um	≥45%	+850+710um	≥70%	-600um	≤3%
#24	+1180um	0	+850um	≤25%	+710um	≥45%	+710+600um	≥65%	-500um	≤3%
#30	+1000um	0	+710um	≤25%	+600um	≥45%	+600+500um	≥65%	-425um	≤3%
#36	+850um	0	+600um	≤25%	+500um	≥45%	+500+425um	≥65%	-355um	≤3%
#46	+600um	0	+425um	≤30%	+355um	≥40%	355+300um	≥65%	-250um	≤3%
#54	+500um	0	+355um	≤30%	+300um	≥40%	+300+250um	≥65%	-212um	≤3%
#60	+425um	0	+300um	≤30%	+250um	≥40%	250+212um	≥65%	-180um	≤3%
#70	+355um	0	+250um	≤25%	+212um	≥40%	+212+180um	≥65%	-150um	≤3%
#80	+300um	0	+212um	≤25%	+180um	≥40%	+180+150um	≥65%	-125um	≤3%
#90	+250um	0	+180um	≤20%	+150um	≥40%	+150+125um	≥65%	-106um	≤3%

#100	+212um	0	+150um	≤20%	+125um	≥40%	+125+106um	≥65%	-75um	≤3%
#120	+180um	0	+125um	≤20%	≥40%	≥40%	+106+90um	≥65%	-63um	≤3%
#150	+150um	0	+106um	≤15%	+75um	≥40%	+75+63um	≥65%	-45um	≤3%
#180	+125um	0	+90um	≤15%	+75um	*	+75+63um	≥40%	-53um	*
#220	+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	≤0.40	≤0.20	≤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