

ZHENGZHOU HAIXU ABRASIVES CO.,LTD

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TECHNICAL DATA SHEET

PRODUCT: BLACK SILICON CARBIDE/CARBORUNDUM/SIC

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

AVERAGE CHEMICAL COMPOSITION(TYPICAL)

SiC	≥98.6%
C _F	≤0.20%
Fe ₂ O ₃	≤0.40%
SiO ₂	≤0.05%

PHYSICAL PROPERTIES(TYPICAL)

Specific Gravity	≥3.12g/cm ³
Mohs Hardness	9.15
Melting Point	2250°C
Refractoriness	1900°C

PARTICLE SIZE DISTRIBUTION

MACROGRIT:F12-F220 /JIS#12-#220

F12/#12	+2800um	0	+2000um	≤20%	+1700um	≥45%	+1700+1400um	≥70%	-1180um	≤3%
F14/#14	+2360um	0	+1700um	≤20%	+1400um	≥45%	+1400+1180um	≥70%	-1000um	≤3%
F16/#16	+2000um	0	+1400um	≤20%	+1180um	≥45%	+1180+1000um	≥70%	-850um	≤3%
F20/#20	+1700um	0	+1180um	≤20%	+1000um	≥45%	+1000+850um	≥70%	-710um	≤3%
F22	+1400um	0	+1000um	≤20%	+850um	≥45%	+850+710um	≥70%	-600um	≤3%
F24/#24	+1180um	0	+850um	≤25%	+710um	≥45%	+710+600um	≥65%	-500um	≤3%
F30/#30	+1000um	0	+710um	≤25%	+600um	≥45%	+600+500um	≥65%	-425um	≤3%
F36/#36	+850um	0	+600um	≤25%	+500um	≥45%	+500+425um	≥65%	-355um	≤3%
F46/#46	+600um	0	+425um	≤30%	+355um	≥40%	355+300um	≥65%	-250um	≤3%
F54/#54	+500um	0	+355um	≤30%	+300um	≥40%	+300+250um	≥65%	-212um	≤3%
F60/#60	+425um	0	+300um	≤30%	+250um	≥40%	250+212um	≥65%	-180um	≤3%
F70/#70	+355um	0	+250um	≤25%	+212um	≥40%	+212+180um	≥65%	-150um	≤3%
F80/#80	+300um	0	+212um	≤25%	+180um	≥40%	+180+150um	≥65%	-125um	≤3%
F90/#90	+250um	0	+180um	≤20%	+150um	≥40%	+150+125um	≥65%	-106um	≤3%
F100/#100	+212um	0	+150um	≤20%	+125um	≥40%	+125+106um	≥65%	-75um	≤3%
F120/#120	+180um	0	+125um	≤20%	≥40%	≥40%	+106+90um	≥65%	-63um	≤3%
F150/#150	+150um	0	+106um	≤15%	+75um	≥40%	+75+63um	≥65%	-45um	≤3%
F180/#180	+125um	0	+90um	≤15%	+75um+63um		≥40%	+75um+63um+53um		≥65%
F220/#220	+106um	0	+75um	≤15%	+63um+53um		≥40%	+63um+53um+45um		≥60%

MACROGRIT : P12-P220

Size	Sieve1 mm	Q1 %	Sieve 2 mm	Q2 %	Sieve 3 mm	Q3 %	Sieve 4 mm	Q4min, %	Sieve 5 mm	Q5mi n, %	Q6ma x, %
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P12	3,35	0	2,36	1	2,00	14±4	1,70	61±9	1,40	92	8
P16	2,36	0	1,70	3	1,40	26±6	1,18	75±9	1,00	96	4
P20	1,70	0	1,18	7	1,00	42±8	(850)	86±6	(710)	96	4
P24	1,40	0	1,00	1	(850)	14±4	(710)	61±9	(600)	92	8
P30	1,18	0	(850)	1	(710)	14±4	(600)	61±9	(500)	92	8
P36	1,00	0	(710)	1	(600)	14±4	(500)	61±9	(425)	92	8
P40	(710)	0	(500)	7	(425)	42±8	(355)	86±6	(300)	96	4
P50	(600)	0	(425)	3	(355)	26±6	(300)	75±9	(250)	96	4
P60	(500)	0	(355)	1	(300)	14±4	(250)	61±9	(212)	92	8
P80	(355)	0	(250)	3	(212)	26±6	(180)	75±9	(150)	96	4
P100	(300)	0	(212)	1	(180)	14±4	(150)	61±9	(125)	92	8
P120	(212)	0	(150)	7	(125)	42±8	(106)	86±6	(90)	96	4
P150	(180)	0	(125)	3	(106)	26±6	(90)	75±9	(75)	96	4
P180	(150)	0	(106)	2	(90)	15±5	(75)	62±12	(63)	90	10
P220	(125)	0	(90)	2	(75)	15±5	(63)	62±12	(53)	90	10
Q1 - Retention on sieve 1											
Q2 - Retention on sieve 1 +sieve 2											
Q3 -Retention on sieve 1 +sieve 2+sieve 3											
Q4 - Retention on sieve 1 +sieve 2+sieve 3+sieve 4											
Q5 - Retention on sieve 1 +sieve 2+sieve 3+sieve 4 +sieve 5											
Q6 - Residue on sieve											

MICROPOWDER:F230-F1500

Size	D3(um)	D50(um)	D94 (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%)

MICROPOWDER:JIS#240-JIS#6000

Size	DO(um)	D3(um)	D50(um)	D94(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	≤5.0	2.0±0.4	≥0.8

MICROPOWDER:P240-P5000

Size	D0 (um)	D3(um)	D50(um)	D94(um)
P240	≤ 110	≤ 81.7	58.5±2.0	≥44.5
P280	≤ 101	≤ 74.0	52.2±2.0	≥39.2
P320	≤ 94	≤ 66.8	46.2±1.5	≥34.2
P360	≤ 87	≤ 60.3	40.5±1.5	≥29.6
P400	≤ 81	≤ 53.9	35.0±1.5	≥25.2
P500	≤ 77	≤ 48.3	30.2±1.5	≥21.5
P600	≤ 72	≤ 43.0	25.8±1.0	≥18.0
P800	≤ 67	≤ 38.1	21.8±1.0	≥15.1
P1000	≤ 63	≤ 33.7	18.3±1.0	≥12.4
P1200	≤ 58	≤ 29.7	15.3±1.0	≥10.2
P1500	≤ 53	≤ 22.4	12.6±1.0	≥8.3
P2000	≤ 45	≤ 19.3	10.3±0.8	≥6.7
P2500	≤ 38	≤ 14.0	8.4±0.5	≥5.4
P3000	≤ 32	≤ 12.0	6.7±0.5	≥3.0
P4000	≤ 27	≤ 11.0	5.5±0.5	≥ 2.0
P5000	≤ 23	≤ 8.0	4±0.5	≥1.8

PACKAGING:25kgs PVC bags+1MT big bag/pallet