

SILICON CARBIDE

Silicon Carbide is a man made mineral product of extreme hardness and sharpness.

It is the ideal abrasive for grinding materials of low tensile strength such as Cast iron, Brass, Aluminium, Bronze, and Cemented Carbide etc.

Its thermal properties make it an excellent medium for use in the manufacture of refractory products including crucibles.

Silicon Carbide is supplied in grain and powder form in a number of different "qualities" each of which has its own particular uses.

Loose Abrasive Grain

In the manufacture of spectacle and telescope lenses; setting up fabric buffing mops for metal polishing; polishing compounds and grease cakes; polishing and cutting gemstones; Glass and metal lapping; for working and polishing granite and stone; and preparing non-slip surfaces by adding to granolithic flooring; stair treads, thresholds etc.

Bonded Abrasives

In grinding wheels for use on materials of low tensile strength, such as cast and chilled iron, non-ferrous alloys, marble and stone, ceramic materials, aluminium, brass and copper, and on materials requiring sharp cutting edges for example rubber, leather and glass; in stones for sharpening hand tools; and in rubbing in bricks for foundry and stone trade uses.

Hardness

The following values show the relative hardness of silicon carbide

Diamond Moh 10
Silicon Carbide Moh 9-10
Aluminium Oxide Moh 9
Garnet Moh 8

Note: Please refer to material safety data sheet when mixing with other products and for general safety handling.

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Available Size Grades

1. Standard grits graded in accordance with the FEPA Standards

- 1.1 FEPA grits for bonded abrasives and other applications
- 1.2 FEPA grits, P series, for coated abrasives only
- 1.3 Nominal grit size in microns
- 1.4 FEPA microgrits, F series, for bonded abrasives and other applications
- 1.5 Average particle size of FEPA grits, F series, in microns (determined by photosedimentation*)
- 1.6 FEPA microgrits, P series, for coated abrasives only
- 1.7 Average particle size of FEPA microgrits, P series, in microns (determined by U.S. Sedimentation Tube*)

Macrogrits:			Microgrits:	
1.1	1.2	1.3	1.4	1.5
<i>FEPA F Series Grit No.</i>	<i>FEPA**) P Series Grit No.</i>	<i>Nominal Grit Size in microns</i>	<i>FEPA F Series Grit No.</i>	<i>Average Particle Size (50% point) in microns with in the range</i>
F4	-	5600-4000	F 230/53	56-50
F5	-	4750-3350	F 240/45	46.5-42.5
F6	-	4000-2800	F 280/37	38-35
F7	-	3350-2360	F 320/29	30.7-27.7
F8	-	2830-2000	F 360/23	24.3-21.3
F10	-	2380-1680	F 400/17	18.3-16.3
F12	P 12	2000-1410	F 500/13	13.8-11.8
F14	-	1680-1190	F 600/9	10.3-8.3
F16	P 16	1410-1000	F 800/7	7.5-5.5
F20	P 20	1190-841	F1000/5	5.3-3.7
F22	-	1000-707	F1200/3	3.5 2.5
F24	P 24	841-595		
F 30	P 30	707-500		
F36	P 36	595-420		
F40	P 40	500-354		
F46	-	420-297		
F54	P 50	354-250		
F60	P 60	297-210		
F70	-	250-177		
F80	P 80	210-149		
F90	P 100	177-125		
F100	P 120	149-105		
F120	P 150	125-88		
F150	-	105-63		
F180	P 180	88-53		
F220	P220	74-44		

1.6		1.7	
<i>FEPA P Series Grit No.</i>	<i>Average Particle Size (50% point) in microns with in the range</i>	<i>FEPA P Series Grit No.</i>	<i>Average Particle Size (50% point) in microns with in the range</i>
P 240	60.5-56.5	P 280	54.20-50.2
P 280	54.20-50.2	P 320	47.7-44.7
P 320	47.7-44.7	P 360	42.0-39.0
P 360	42.0-39.0	P 400	36.5-33.5
P 400	36.5-33.5	P 500	31.7-28.7
P 500	31.7-28.7	P 600	25.75-24.75
P 600	25.75-24.75	P 800	22.8-20.8
P 800	22.8-20.8	P 1000	19.3-17.3
P 1000	19.3-17.3	P 1200	16.2-14.2
P 1200	16.2-14.2		

*) The measured values of the two methods cannot be compared directly

**) The FEPA P grits correspond only approximately to the nominal grit sizes

2. Special Grades

Grits and group grades for special purposes can be made available on request.

3. Bubble Alumina Group Grades

Special Type

(Shells removed)

1-2mm 2-5mm

2-3mm 3-5mm

Standard Type

(Shells not removed)

0-0.5mm 0-2mm

1-1.0mm 0-3mm

0.5-1.0mm 0-5mm