



CUMI SHARP



BLACK SILICON CARBIDE

Black Silicon Carbide (SiC) is an extremely hard man made mineral that possesses high thermal conductivity (100 W/m -K). It also has high strength at elevated temperatures (at 1000°C, SiC is 7.5 times stronger than Al₂O₃). 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 2600°C.

APPLICATION

CUMI SHARP Black Silicon Carbide, bonded grains is used in both organic and vitrified grinding wheels for grinding hard or brittle materials such as cast iron, ceramics and glass. It is also used for grinding low tensile strength, ductile, non-ferrous metals.

GRAIN SIZES AVAILABLE

F12, F14, F16, F20, F24, F30, F36, F40, F46, F54, F60, F70, F80, F90, F100, F120, F150, F180 and F220 as per FEPA (Federation of European Producers of Abrasives) standard 42-1:2006.

TYPICAL PROPERTIES

Physical Properties		
Property	Unit	Value
Hardness	Mohs Scale	9.5
Hardness	Knoop Scale (Kg/mm ²)	2500
Specific gravity		3.2

Chemical composition	
Constituent	Value *
SiC	98.54 %
Free C	0.26 %
Si+SiO ₂	0.68 %
Fe ₂ O ₃	0.24 %
Al ₂ O ₃	0.20 %

* Analyzed for Grit F 24

BULK DENSITY (TYPICAL)							
Grit	g/cc	Grit	g/cc	Grit	g/cc	Grit	g/cc
12	1.46 – 1.56	30	1.49 – 1.59	70	1.48 – 1.58	150	1.40 – 1.50
14	1.48 – 1.58	36	1.49 – 1.59	80	1.47 – 1.57	180	1.37 – 1.47
16	1.48 – 1.58	46	1.49 – 1.59	90	1.41 – 1.51	220	1.37 – 1.47
20	1.48 – 1.58	54	1.49 – 1.59	100	1.45 – 1.55		
24	1.49 – 1.59	60	1.49 – 1.59	120	1.42 – 1.52		

Values obtained according to FEPA 44-1-:2006

Packing: 25 kg multiply paper bags of 1000 kg palletized. Other packaging types on request

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