



## TECHNICAL DATA SHEET

### Green Silicon Carbide

#### Typical Chemistry

	Macrogrits	Microgrits
Silicon Carbide (SiC)	99.10 %	99.15 %
Free Carbon (C)	0.10 %	0.10 %
Silicon Dioxide (SiO <sub>2</sub> )	0.50 %	0.35 %
Free Silicon (Si)	0.15 %	0.15 %
Iron (Fe <sub>2</sub> O <sub>3</sub> )	0.10 %	0.10 %

#### Physical Characteristics

Crystal Form	Hexagonal (Alpha SiC)
True Density	3.21 g/cm <sup>3</sup>
Melting Point	Dissociates at Approx. 2500°C
Color	Green
Hardness	Knoop (100): 2500 Mohs: 9.0+

#### Test Methods

Chemistry	ANSI B74.15
Bulk Density	ANSI B74.4
Macrogrit Sizing	FEPA F Standard 42-1:2006 FEPA P Standard 43-1:2006 ANSI B74.12-2003
Microgrit Sizing	FEPA F Standard 42-2:2006 FEPA P Standard 43-2:2006 JIS R 6001-1987

#### Description:

**GNP Graystar's** Green Silicon Carbide is a high purity silicon carbide produced in an electrical resistance arc furnace with high purity quartz and coke as its primary raw materials. The final product produces a harder, sharper, and more friable crystal than black silicon carbide.

**GNP Graystar's** Green Silicon Carbide grains and powders are produced using various techniques to optimize shape, surface area, and density.

#### Applications:

**GNP Graystar's** Green Silicon Carbide macrogrits are typically used for grinding high alloys where cool cutting is of the utmost importance.

**GNP Graystar's** Green Silicon Carbide microgrits are used for wiresawing semiconductor materials, lapping, fine bonded and coated applications composites, refractory materials, precision ceramics, and other critical applications.

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