



# GNP Graystar

Specialty Materials

## TECHNICAL DATA SHEET

### Silica Fume

#### Typical Chemistry

Silicon Dioxide (SiO <sub>2</sub> )	96.0 %
Free Carbon (C)	1.1 %
Free Silicon (Si)	0.12 %
Total Calcium Oxide (CaO)	0.42 %
Sulfur (SO <sub>2</sub> )	0.01 %
Sodium Oxide (Na <sub>2</sub> O)	0.06 %
Potassium Oxide (K <sub>2</sub> O)	0.38 %
Aluminum Oxide (Al <sub>2</sub> O <sub>3</sub> )	0.11 %
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	0.08 %
Magnesium Oxide (MgO)	0.29 %
Water/Moisture (H <sub>2</sub> O)	0.3 %
Chlorine (Cl)	95 ppm

#### Physical Specifications:

pH:	7.5
Loss on Ignition (950°C / 1 hr.):	1.7 %
Specific Surface Area (BET):	20.5 m <sup>2</sup> /g
Bulk Density:	19 lb./ft <sup>3</sup>
> 45 microns:	2.2 %
Brightness:	47

#### Description:

GNP Graystar's Silica Fume is an un-densified, amorphous light gray silicon dioxide powder with low impurity levels and a constant pH.

#### Applications:

GNP Graystar's Silica Fume is perfect for use in refractory castables, including low and medium cement, vibratables, and self-flow castables. Use of Silica Fume improves the mechanical properties (MOR, CCS, creep, etc.) of castables by acting as a flow agent of water required to place refractory castable mix.

[info@GNPGraystar.com](mailto:info@GNPGraystar.com)

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**Northern Office**  
37 John Glenn Dr.  
Amherst, NY 14228  
716.759.6600

[www.GNPGraystar.com](http://www.GNPGraystar.com)

**Southern Office**  
9 Simmonsville Rd.  
Bluffton, SC 29910  
843.815.5600