



# Technical Silica Co.



## RD-1000 Silica Fume Concrete

### Product Data

Densified, constant pH, amorphous light gray silicon dioxide powder, obtained by filtering the dusts extracted from the production of silicon metal in an electric arc furnace.

RD-1000 Concrete is used to make high performance concrete. Silica fume is one of the more important advanced materials necessary in the effort to rebuild our nation's infrastructure. Silica fume delivers increased toughness and resistance to abrasion and corrosion, improving sustainability and life-cycle cost efficiencies.

**Applications:** Highway bridges, parking decks, marine structures and bridge deck overlays.

**Packaging:** Bulk super-sack, 50 lb. bags, other packaging options are available on request.

**Storage:** Dry storage. Avoid contact with moisture.

**Safety:** Product totally amorphous. Safety data sheet available on request.

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Physical and Chemical Characteristics			
Analysis	Typical	Min	Max
SiO <sub>2</sub> (%)	96.1	95.0	97.75
Free C (%)	1.1	0.6	2.2
Free SI (%)	0.12	0.1	0.18
Total CaO (%)	0.42	.19	.82
SO <sub>2</sub> (%)	0.01	0.008	.09
Na <sub>2</sub> O (%)	0.06	0.01	0.25
K <sub>2</sub> O(%)	0.38	0.35	0.6
Cl(ppm)	90	50	250
Al <sub>2</sub> O <sub>2</sub> (%)	< 0.03**	< 0.01**	< 0.1**
Fe <sub>2</sub> O <sub>2</sub> (%)	0.11	< 0.1	0.25
MgO(%)	0.29	0.1	1
H <sub>2</sub> O(%)	.3	.1	1.5
pH	7.8	6.75	8.5
Loss on ignition (950 C During 1 hour) (%)	2.0	1.1	3.7
Specific Surface (BET) (M <sup>2</sup> /g)	20.3	19.5	22
Bulk Density (lbs/ft <sup>3</sup> )	42	36	45
>45 μm	3.2	1.1	4.5
Brightness L*	47	45	50
*% By weight of dry mass ** Lower limit Detection			

