



# Technical Silica Co.



## 106 UM Silica Fume Refractory

### Product Data

106 UM Silica fume is an undensified silica fume with a constant pH. It is an amorphous light gray silicon dioxide powder that has a low impurity level and is consequently perfectly adapted to refractory castable. Use of Silica Fume improves the mechanical properties, the compressive strength, creep, modulus of rupture and durability (via permeability decrease).

**Applications:** Low and Medium Cement Refractory Castables, Vibrated or Self Consolidating Concrete (SCC).

**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> (%)	96.5	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>3</sub> (%)	< 0.03**	< 0.01**	< 0.1**
Fe <sub>2</sub> O <sub>3</sub> (%)	0.11	< 0.1	0.25
MgO (%)	0.29	0.1	1
H <sub>2</sub> O(%)	.3	.1	1.5
pH	7.5	6.75	8.0
Loss on ignition (950 C During 1 hour) (%)	1.7	1.1	3.7
Specific Surface (BET) (M <sup>2</sup> /g)	21	19.5	24
Bulk Density (lbs/ft <sup>3</sup> )	20	18	24
>45 urn (5)	3.2	1.1	4.5
Brightness L*	47	45	50
*% By weight of dry mass			
** Lower limit Detection			

