

## FUME

Fume is a byproduct of raw material production and is a fine white or off-white powder. Types of Fume are usually Silica or Zirconia. Depending on whether it is a controlled fuming process (Fumed Silica) or captured from furnace gas (Silica fume) determines the level of purity. When mixed with liquids, a three dimensional matrix is formed creating properties helping to increase viscosity, strengthen cement, prevent absorption in porous substrates, prevent pigment sedimentation, control evaporation in coatings, create sag resistant coatings. When added to solids or powders, it acts as a lubricant or an anti-caking agent.



## TYPICAL APPLICATIONS

Filler for Rubbers and Plastics	Whitening
Flow Additive	Surface Modifiers
Coatings	Refractories
Adhesives	Thickeners
Concrete Admixture	Anti-Slip Applications
Sealants	

## TYPICAL PROPERTIES

Anti-Caking Agent
Lubricant
Filler
Improved Durability
Increased Strength
Increased Flowability
Decreased Water Consumption
Abrasion Resistance
Corrosion Resistance
Chemical Resistance



## TYPICAL ANALYSIS

Analysis	Typical Results				
	PSF 87	PSF 94U	PSF 92	PSF 94	PSF 87Z
SiO <sub>2</sub>	86.40%	94.58%	92.09%	94.8%	87%
K <sub>2</sub> O	1.34%	N/A	1.12%	0.63%	N/A
Na <sub>2</sub> O	0.52%	0.16%	0.42%	0.35%	N/A
ZrO <sub>2</sub> %	N/A	3.2%	N/A	N/A	12.5%
Al <sub>2</sub> O <sub>3</sub>	N/A	N/A	N/A	N/A	0.3%
Fe <sub>2</sub> O <sub>3</sub>	N/A	N/A	N/A	N/A	0.2%
CaO	N/A	N/A	N/A	N/A	<0.1%
MgO	N/A	N/A	N/A	N/A	<0.1%
TiO <sub>2</sub>	N/A	N/A	N/A	N/A	<0.1%
Carbon	N/A	N/A	N/A	N/A	<0.3%
pH Value	N/A	7.2	N/A	N/A	N/A
Loss on Ignition at 750°C	1.87%	2.3%	1.60%	0.90%	N/A
White Degree %	N/A	89%	N/A	N/A	N/A
Moisture Content (when bagged)	0.41%	N/A	0.40%	0.43%	N/A
Course Particles: >45 micron	4.0%	N/A	3.6%	2.4%	2%
Specific Surface Area (B.E.T.)	18 m <sup>2</sup> /g	19.34 m <sup>2</sup> /g	20 m <sup>2</sup> /g	20 m <sup>2</sup> /g	20 m <sup>2</sup> /g
Bulk Density (kg/m <sup>3</sup> )	200-350	488	200-350	200-350	N/A
	600-700		600-700		

