

Silica Fume Concrete



Silica fume names

Silica Fume, Microsilica, Undensified Silica Fume, Undensified Microsilica, Densified Silica Fume, Densified Microsilica, Silica ash, amorphous silica

Introduction

Silica fume, also known as microsilica, it is a very fine pozzolanic material, composed of amorphous silica produced by electric arc furnaces as a byproduct of the production of elemental silicon or ferro silicon alloys. Silica fume can be used in a variety of cementitious products such as concrete, grouts, and mortars as well as elastomer, polymer, refractory, ceramic and rubber applications.

Specification

Silicon Dioxide (SiO₂): 85 to 97 %

Moisture Content: Maximum 2.0 %

Loss on Ignition (LOI): Maximum 2.0 %

Oversize percent retained on 45- μm (325 sieve): Maximum 2 %

Specific Surface: Minimum 18 m^2/g

Density: 250 to 700 kg/m^3

(Densified Silica Fume and Undensified Silica Fume)



Densified Silica Fume

Bulk Density: 550-700 kg/m^3

SiO_2 : 88% - 97% min

Densified Silica Fume, also called silica fume or micro silica, is a byproduct of production silicon metal or ferrosilicon alloys. Silicon metal and alloys are produced in electric furnaces. The raw materials are quartz, coal and woodchips. The smoke that results from furnace operation is collected and sold as silica fume, silica fume consists primarily of amorphous (non-crystalline) silicon dioxide (SiO_2), its average granule

diameter is 0.15~0.20um,specific surface area is 15000~20000m²/kg,and it has extremely strong surface active.



Undensified Silica Fume

Bulk Density:300-350 kg/m³
SiO₂: 88% - 97% min

Introduction

Undensified Microsilica, also called silica fume or micro silica, is a byproduct of production silicon metal or ferrosilicon alloys. Silicon metal and alloys are produced in electric furnaces. The raw materials are quartz, coal and woodchips. The smoke that results from furnace operation is collected and sold as silica fume, silica fume consists primarily of amorphous(non-crystalline) silicon dioxide(SiO₂),its average granule diameter is 0.15~0.20um,specific surface area is 15000~20000m²/kg,and it has extremely strong surface active.

Packing:



10kg soluble paper bags x 84 on the pallets.

20kg soluble paper bags x 42 on the pallets.

950kg plastic woven bags x 2 on the pallets(with or without bottom output)

1000kg plastic woven bags x 2 on the pallets(with or without bottom output)

500kg plastic woven bags x 2 on the pallets (with or without bottom output)

We can also produce according to your requirement.

Application:

Silica fume in concrete industry application

Silica fume in refractory industry application

Silica fume in rubber industry application

Silica fume as anti-caking agent

Silica fume as pellet binders

Silica fume in water glass industry

Silica fume in drilling industry

Other fields

Micro Silica for Concrete



Bulk Density: 300-350kg/m³; 550-700kg/m³
SiO₂: 88% - 97% min

Micro Silica for Concrete Introduction

In addition to increased strength and enhanced durability, concrete produced with micro silica increased toughness; increased resistance to abrasion, corrosion and chemicals; and placement and life-cycle cost efficiencies. Micro Silica will protect concrete against deicing salts, seawater, road traffic and freeze/thaw cycles. Besides, high-strength concrete enhanced with micro silica provides architects and engineers with greater design flexibility.

Effect of Silica Fume for Concrete

- 1). Increase durability
- 2). Reduces concrete permeability
- 3). Improves resistance to corrosion
- 4). Shotcrete - lower rebound

Refractory Micron Silica



Bulk Density: 300-350 kg/m³

SiO₂: 88% - 97% min

Refractory Micron Silica Powder Introduction

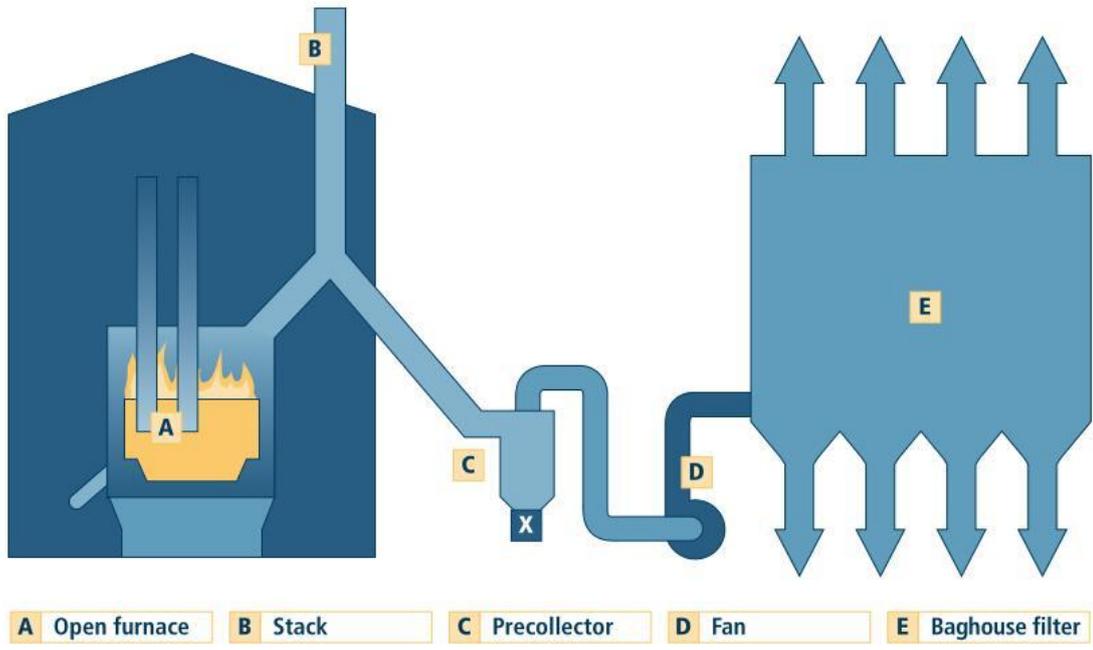
The use of Micron Silica Powder in refractory castables provides better particle packing. It allows for less water to be used while maintaining the same flow characteristics. It also promotes low temperature sintering and the formation of mullite in the matrix of the castable. This produces a castable that has a low permeability to avoid gas, slag and metal penetration. Castables incorporating micron silica powder are stronger than non-micron silica powder containing castables especially at high temperatures with higher density they attain lower porosity and are more volume stable

Features Characteristics for Refractory micrasilica fume

1. Enhancing the fluid of pouring refractory.
2. Reducing the volume of used water.
3. be easy to shape.
4. Raising the production efficiency.
5. Raising the compact and intensity of refractory.
6. Enhance elevated temperature strength and thermal shock of refractory.

Production Line

Raw Material — Furnace — Precollector & Fan — Baghouse Filter — Micro Silica



QC Profile

In accordance with requirements of ISO9001 : 2008 system, we have drawn out a complete quality assurance system and passed ISO9001 : 2008 standard auditing in 2007.

