

## **SILICA FUME**

High reactivity pozzolan

**DESCRIPTION:** SILICA FUME is the finely divided residue resulting from the production of silicon, or silicon-containing alloys, that are carried from the furnace by exhaust gases. The SILICA FUME is collected by filtering the gases escaping from the furnaces, leaving cleaner air to escape from the smoke stacks. Physically, it is very fine, approximately 40 times finer than Fly Ash. SILICA FUME is a powdery material, predominantly SiO<sub>2</sub>, with particles almost totally spherical in shape. Due to its extreme fineness and high SiO<sub>2</sub> content, SILICA FUME is highly reactive as a pozzolan.

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**USES:** SILICA FUME is widely used today as a cementitious material in the production of a great variety of concrete mixes. The advantages of using SILICA FUME include:

- Increased compressive strength
  - Increased cohesiveness
  - Allows for reduction of total cement
  - Increased durability
  - Enhanced performance of dry and wet mix shotcrete
  - Decreased permeability
  - Reduced sulphate attack
  - Decreased bleeding and segregation
  - Improving characteristics of Tremie concrete
  - Reduced harmful cement / aggregate reaction such as alkali-aggregate reactivity.
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**TECHNICAL DATA:** SILICA FUME meets CSA A 3000-98 and ASTM C1240-97b for SILICA FUME.

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**PACKAGING:** SILICA FUME is packaged in 20 kg (44 lb.) paper bags.

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**SAFETY PRECAUTIONS:** Normal safety wear such as rubber gloves, dust masks and safety glasses, used to handle conventional cement-based products, should be worn. Material Safety Data Sheets are available upon request.