

Silica Fume

Description: Silica fume is a by-product of silicon or ferrosilicon production. It consists of ultrafine, submicron, amorphous, non-porous and spherical SiO₂ particles with a purity of 85–99%. Its average primary-particle diameter is approximately 0.15 µm. The particles provide an effective filling effect and, owing to their amorphous structure and high specific surface area, a strong pozzolanic reaction with calcium hydroxide. These effects improve packing, strength and durability in concrete and other cementitious systems. In refractory castables, silica fume improves sintering behavior and high-temperature performance through reaction with other refractory constituents.

Required Values

SiO ₂ (%)	Moisture (%)	LOI (%)	Bulk Density (g/dm ³)	Fluidity (cm)	pH	C (%)
≥ 95	≤ 1.5	≤ 3.0	280–350	≥ 8	3.0–9.0	—
≥ 95	≤ 1.5	≤ 3.0	≥ 630	≥ 8	3.0–9.0	—

Typical Values

SiO ₂ (%)	Moisture (%)	LOI (%)	Bulk Density (g/dm ³)	Fluidity (cm)	pH	C (%)
98	0.1	0.6	723	11	8.5	0.3
98	0.1	0.3	738	12	8.1	0.2
98	0.1	0.3	339	11	8.3	0.1
98	0.1	0.2	282	10	8.2	0.1
99	0.1	0.3	669	12	8.3	0.1
99	0.1	0.1	342	12	8.3	0.1

Product Information

Size	Average primary particle diameter: approximately 0.15 µm.
Packing	In 1.00 MT, 1.25 MT or 1.35 MT bulk bags; 25/50 kg bags in bulk bags or on wrapped pallets.
Origin	Gansu Province, China.