

Certificate of Analysis

Silica fume (grey)

ASTM C1240-10a Standard Requirements	Limits	Results
Acc. Pozzolanic strength Activity index 7 d (%)	>105	142
Specific surface (m ² /g)	>15	24
Density (g/cm ³)	---	2,35
Oversized retained on 45 µm (%)	<10	3,7
Loss on ignition, LOI (%)	<6,0	2,4
Moisture (%)	<3,0	0,3
Silicon dioxide, SiO ₂ (%)	>85	96.6
CSA A3001-08 Standard Requirements	Limits	Results
Autoclave expansion (%)	<0,2	-0,036
Finesse, retained on 45 µm (%)	<10	3,89
Tendency to entrap air	No visible foam	No visible foam
Loss on ignition, LOI (%)	<10	1,94
Sulphur trioxide, SO ₃ (%)	<1,0	0,26
Silicon dioxide, SiO ₂ (%)	>85	95,6
Physical and Chemical Analysis	Results	
Bulk density, undensified (kg/m ³)	151	
Bulk density, densified (kg/m ³)	650-750 (range)	
Carbon free, C (%)	1,64	
Chloride, Cl ⁻ (%)	0,03	
Moisture (%)	0,75	
pH	8.1	
Aluminium oxide, Al ₂ O ₃ (%)	0,14	
Calcium oxide, CaO (%)	0,38	
Ferric Oxide, Fe ₂ O ₃ (%)	0,07	
Magnesium oxide, MgO (%)	0,29	
Phosphorous pentoxide, P ₂ O ₅ (%)	0,10	
Potassium oxide, K ₂ O (%)	0,53	
Sodium oxide, Na ₂ O (%)	0,15	

1: Typical results (2013)

- **The Silica Fume meets the requirements for Silica Fume Used in Cementitious Mixtures of ASTM C1240-10a and for Cementing Materials and Blended Supplementary Cementing Materials of CSA – A3001-08 for type SF.**