



## FLY ASH TEST REPORT

Sample from : Centralia/Kamloops Type F Fly Ash  
Average Analysis: December 2024  
Test Report Number Centralia/Kamloops-1-25\_F\_CSA  
Ash Source: Centralia Washington

### Chemical Analysis

Silicon Dioxide (SiO <sub>2</sub> )	57.8 %
Aluminum Oxide (Al <sub>2</sub> O <sub>3</sub> )	12.9 %
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	5.9 %
Total (SiO <sub>2</sub> ) + (Al <sub>2</sub> O <sub>3</sub> ) + (Fe <sub>2</sub> O <sub>3</sub> )	76.6 %
Sulphur Trioxide (SO <sub>3</sub> )	0.5 %
Calcium Oxide (CaO)	13.7 %
Magnesium Oxide	3.2 %
Moisture Content	0.27 %
Loss on Ignition	2.81 %
Total Alkalies as Equivalent Na <sub>2</sub> O	3.24 %

### Physical Analysis

Fineness Retained on 45 um (No. 325 Sieve)	13.1 %
Fineness Retained on 160 um	0.2
Quality of Air Entrainment	1.1 %
Strength Activity Index with Portland Cement	
% of Control at 7 Days	81 %
% of Control at 28 Days ( <i>previous month's result</i> )	85 %
Water Requirement, Percent of Control	100 %
Density	2.71 g/cm <sup>3</sup>
Density, Variation from Average	1.10 %
Fineness 45um Sieve, Variation from Average	2.90 %

We hereby certify that the composite fly ash sample above meets the chemical, physical and testing frequency requirements of CAN/CSA A3001 for Type F Fly Ash.

\* Tested at CCIL, ASTM C1077 and AASHTO R18 Accredited Laboratory

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