LAFARGE

FLY ASH TEST REPORT

Sample from :	Centralia/Kamloops Type F Fly Ash
Average Analysis:	November 2024
Test Report Number	Centralia/Kamloops-12-24_F_CSA
Ash Source:	Centralia Washington

Chemical Analysis

Silicon Dioxide (SiO_2)	54.6	%
Aluminum Oxide (Al_2O_3)	11.8	%
Iron Oxide (Fe_2O_3)	5.7	%
Total (SiO_2) + (Al_2O_3) + (Fe_2O_3)	72.1	**%**
Sulphur Trioxide (SO_3)	0.5	%
Calcium Oxide (CaO)	13.1	%
Magnesium Oxide	3.1	%
Moisture Content	0.30	%
Loss on Ignition	2.83	%
Total Alkalies as Equivalent Na_2O	2.97	%

Physical Analysis

Fineness Retained on 45 um (No. 325 Sieve)	11.7	%
Fineness Retained on 160 um	0.3	
Quality of Air Entrianment	1.1	%
Strength Activity Index with Portland Cement		
% of Control at 7 Days	81	%
% of Control at 28 Days *(previous month's result)*	83	%
Water Requirement, Percent of Control	100	%
Density	2.69	g/cm^3
Density, Variation from Average	0.50	**%**
Fineness 45um Sieve, Variation from Average	3.30	**%**

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 Acreedited Laboratory

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