



FLY ASH TEST REPORT

Sample from : Sundance Harvested Fly Ash
Average Analysis: January 2025
Test Report Number Sundance_HA-2-25_F_CSA

Chemical Analysis

Silicon Dioxide (SiO_2)	59.1 %
Aluminum Oxide (Al_2O_3)	23.8 %
Iron Oxide (Fe_2O_3)	3.4 %
Total (SiO_2) + (Al_2O_3) + (Fe_2O_3)	86.3 %
Sulphur Trioxide (SO_3)	0.3 %
Calcium Oxide (CaO)	9.0 %
Magnesium Oxide	1.3 %
Moisture Content	0.24 %
Loss on Ignition	1.66 %
Total Alkalies as Equivalent Na_2O	2.60 %

Physical Analysis

Fineness Retained on 45 um (No. 325 Sieve)	26.3 %
Fineness Retained on 160 um	0.7
Quality of Air Entrainment	1.0 %
Strength Activity Index with Portland Cement	
% of Control at 28 Days (<i>previous month's result</i>)	88 %
Water Requirement, Percent of Control	94 %
Density	2.20 g/cm ³
Density, Variation from Average	0.60 %
Fineness 45um Sieve, Variation from Average	2.20 %

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

A handwritten signature in black ink, appearing to read 'Robt S. Shogren'.

Rob Shogren, P.Eng, Ph.D.
Technical Director
Lafarge