



FLY ASH TEST REPORT

Sample from : Sundance Harvested Fly Ash
Average Analysis: February 2025
Test Report Number Sundance_HA-3-25_F_CSA

Chemical Analysis

Silicon Dioxide (SiO_2)	60.3 %
Aluminum Oxide (Al_2O_3)	23.7 %
Iron Oxide (Fe_2O_3)	3.5 %
Total (SiO_2) + (Al_2O_3) + (Fe_2O_3)	87.5 %
Sulphur Trioxide (SO_3)	0.3 %
Calcium Oxide (CaO)	8.7 %
Magnesium Oxide	1.2 %
Moisture Content	0.12 %
Loss on Ignition	1.53 %
Total Alkalies as Equivalent Na_2O	2.75 %

Physical Analysis

Fineness Retained on 45 μm (No. 325 Sieve)	27.6 %
Fineness Retained on 160 μm	0.3
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	97 %
Density	2.18 g/cm^3
Density, Variation from Average	0.50 %
Fineness 45 μm Sieve, Variation from Average	1.10 %

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