AMRIZE

FLY ASH TEST REPORT

Sample from : Sundance Harvested Fly Ash
Average Analysis: August 2025
Test Report Number Sundance_HA-9-25_F_CSA

Chemical Analysis

Silicon Dioxide (SiO_2)	**51.8**	%
Aluminum Oxide (Al_2O_3)	**21.9**	%
Iron Oxide (Fe_2O_3)	**3.4**	%
Total (SiO_2) + (Al_2O_3) + (Fe_2O_3)	**77.1**	**%**
Sulphur Trioxide (SO_3)	**0.2**	%
Calcium Oxide (CaO)	**6.3**	%
Magnesium Oxide	**0.6**	%
Moisture Content	**0.16**	%
Loss on Ignition	**2.27**	%
Total Alkalies as Equivalent Na_2O	**2.93**	%

Physical Analysis

Fineness Retained on 45 um (No. 325 Sieve)	**23.1**	%
Fineness Retained on 160 um	**0.3**	
Quality of Air Entrianment	**1.0**	%
Strength Activity Index with Portland Cement		
% of Control at 28 Days *(previous month's result)*	**84**	%
Water Requirement, Percent of Control	**90**	%
Density	**2.29**	g/cm^3
Density, Variation from Average	**0.10**	**%**
Fineness 45um Sieve, Variation from Average	**4.10**	**%**

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**

Robert D. Shogren

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