AMRIZE

FLY ASH TEST REPORT

Sample from : Sundance Harvested Fly Ash
Average Analysis: October 2025
Test Report Number Sundance_HA-11-25_F_CSA

Chemical Analysis

Silicon Dioxide (SiO_2)	**59.0**	%
Aluminum Oxide (Al_2O_3)	**23.1**	%
Iron Oxide (Fe_2O_3)	**3.6**	%
Total (SiO_2) + (Al_2O_3) + (Fe_2O_3)	**85.7**	**%**
Sulphur Trioxide (SO_3)	**0.2**	%
Calcium Oxide (CaO)	**8.6**	%
Magnesium Oxide	**0.7**	%
Moisture Content	**0.09**	%
Loss on Ignition	**1.87**	%
Total Alkalies as Equivalent Na_2O	**2.75**	%

Physical Analysis

Fineness Retained on 45 um (No. 325 Sieve)	**28.4**	%
Fineness Retained on 160 um	**0.9**	
Quality of Air Entrianment	**1.0**	%
Strength Activity Index with Portland Cement		
% of Control at 28 Days *(previous month's result)*	**94**	%
Water Requirement, Percent of Control	**100**	%
Density	**2.30**	g/cm^3
Density, Variation from Average	**0.90**	**%**
Fineness 45um Sieve, Variation from Average	**4.30**	**%**

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 Accredited Laboratory**

Robert S. Shogren

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