

FLY ASH TEST REPORT

Analysis by: Amrize Seattle Concrete Lab
Sample from : Centralia Power Plant
Average Analysis: September 2025
Test Report Number 10-25 Class F

Chemical Analysis

	Results	Limits
Silicon Dioxide (SiO ₂)	48.4 %	
Aluminum Oxide (Al ₂ O ₃)	17.9 %	
Iron Oxide (Fe ₂ O ₃)	5.6 %	
Total (SiO ₂) + (Al ₂ O ₃) + (Fe ₂ O ₃)	72 %	50% Min - ASTM
Sulphur Trioxide (SO ₃)	1.2 %	5% Max - ASTM
Calcium Oxide (CaO)	14.6 %	18% Max - ASTM
Magnesium Oxide	4.0 %	
Moisture Content	0.16 %	3% Max - ASTM
Loss on Ignition	0.52 %	5% Max
Available Alkali as Equiv. Na ₂ 0 (previous month's result)	0.80 %	1.5% Max

Physical Analysis

Fineness Retained on 45 um (No. 325 Sieve)	12.0 %	34% Max - ASTM
Strength Activity Index with Portland Cement		
% of Control at 7 Days	95 %	75% Min - ASTM
% of Control at 28 Days (previous month's result)	105 %	75% Min - ASTM
Water Requirement, Percent of Control	93 %	105% Max- ASTM
Density	2.62 Mg/m ³	

Uniformity Requirements

Density, Variation from Average	0.70 %	5% Max - ASTM
Fineness 45um Sieve, Variation from Average	1.30 %	5% Max - ASTM

We hereby certify that the composite fly ash sample above meets the chemical and physical requirements of ASTM C618 and AASHTO M295 for class F fly ash.

Certified :

Rob Shogren Technical Director

Wolnt D. Shoopen

WESTERN REGION

5400 West Marginal Way SW, Seattle, Washington 98106-1517 Office: 206.923.0098 or 800.477.0100 Fax: 206.923.0388