



Cement Mill Test Report

Date of Issue: October 11, 2024

Plant: Exshaw AB
 Product: Portland Cement Type IL (12) VCM Only
 Mill Test Report Number: ESW_Type IL12 2024-9-VCM
 Manufactured during the month of: September 2024

CHEMICAL ANALYSIS

Item	Spec limit	Test Result
Rapid Method, X-Ray		
SiO ₂ (%)	---	17.5
Al ₂ O ₃ (%)	---	3.7
Fe ₂ O ₃ (%)	---	3.0
CaO (%)	---	59.9
MgO (%)	---	4.5
SO ₃ (%) **	3.0 max	3.5
Loss on ignition @ 950 (%)	10.0 max	6.6
Loss on ignition @ 550(%)		1.1
Insoluble residue (%)*	1.5 max	0.6
Limestone Addition		13.0
Specific Gravity (For Information Purposes Only)		3.13

PHYSICAL ANALYSIS

Item	Spec limit	Test Result
Blaine Fineness (m ² /kg)	---	549
Retained 45 um (%)	24 max	0.1
Compressive Strength MPa [psi] C109		
1 Day		MPa psi
3 Day	13.0 [1890] min	18.9 [2,741]
7 Day	20.0 [2900] min	30.3 [4,394]
28 Day (Previous Month's Result)	25.0 [3620] min	35.6 [5,162]
42.2 [6,119]		
Time of setting (minutes)		
Vicat Initial	60- 480	91
Mortar Bar Expansion (%) (C1038)	0.020 max	0.010
Colour (For Information Purposes Only)		35

Other Chemical Information:

Na ₂ Oeq (%) Weekly Averages	Week 1	Week 2	Week 3	Week 4
	0.53	0.53	0.54	0.53

* Previous Month's Results

** May exceed 3.0% SO₃ maximum based on ASTM C1038 results of <0.020% expansion at 14 days.

*** Results determine at the Lafarge Seattle and or Edmonton labs. 6 Months completed Decemeber 2023 12 Months completd June 2023.



Certified to NSF/ANSICAN 61

AASHTO ACCREDITED

We certify that the above described cement, at the time of shipment, meets the chemical and physical requirements of ASTM C595/C595M-23 & AASHTO M 240-23 STANDARD SPECIFICATIONS FOR TYPE IL (12).

Exceptions: ASTM C430 is not within the current Scope of Accrediation.

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Certified By:

John W Blair
 Quality Manager