



# Cement Mill Test Report

Date of Issue: August 12, 2024

Plant: Exshaw AB  
 Product: OneCem / IL(12)  
 Manufactured during the month of: July 2024

CHEMICAL ANALYSIS			PHYSICAL ANALYSIS		
Item	Spec limit	Test Result	Item	Spec limit	Test Result
Rapid Method, X-Ray (C114)			Blaine Fineness (m <sup>2</sup> /kg) (C204)		533
SiO <sub>2</sub> (%)		17.4	Passing 45 μm (%) (C430)		99.7
Al <sub>2</sub> O <sub>3</sub> (%)		3.8	Air Content (%) (C186)	12 max	6
Fe <sub>2</sub> O <sub>3</sub> (%)		3.0	Compressive Strength (MPa [psi]) (C109)		
CaO (%)		60.2	1 day		17.7 [2560]
MgO (%)		4.4	3 days	13.0 [1890] min	30.4 [4406]
SO <sub>3</sub> (%)	3.0 max*	3.5	7 days	20.0 [2900] min	35.6 [5168]
K <sub>2</sub> O (%)		0.50	28 days ( <u>Previous Month Results</u> )	25.0 [3620] min	43.3 [6284]
Na <sub>2</sub> O (%)		0.14	Time of setting (minutes) (C191)		
NaEq (%)		0.47	Vicat Initial	45 min.	80
Loss on Ignition @ 950 (%)	10.0 max	6.5	ASTM C1012 Expansion % ***		
Loss on Ignition @ 550 (%)		1.1	6 Months	0.10 max (MS) 0.05 max (HS)	0.099
Inorganic Process Addition (Lafarge Cement Kiln Dust)	5.0 max	-	12 Months	0.10 max (HS)	Pending
Adjusted Potential Phase Composition (C 150 - For information only)			Mortar Bar Expansion (%) (C1038)	0.020 max	0.010
C <sub>3</sub> S (%)	---	50			
C <sub>2</sub> S (%)	---	12			
C <sub>3</sub> A (%)	---	5			
C <sub>4</sub> AF (%)	---	9			

\* May exceed the SO<sub>3</sub> maximum based on C1038 results of <0.020% expansion at 14 days.

\*\*\* Performed by Lafarge Edmonton and/or Seattle Labs

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) and (MS) CEMENT.

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



Certified to NSF/ANSI/CAN 61

AASHTO ACCREDITED

Western BU - Exshaw Plant

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