



# Cement Mill Test Report

Date of Issue: December 17, 2024

Plant: Exshaw AB  
 Product: Portland Cement Type IL (12) VCM Only  
 Mill Test Report Number: ESW\_Type IL12 2024-11-VCM  
 Manufactured during the month of: November 2024

## CHEMICAL ANALYSIS

Item	Spec limit	Test Result
Rapid Method, X-Ray (XRF) (C114)		
SiO <sub>2</sub> (%)	---	17.2
Al <sub>2</sub> O <sub>3</sub> (%)	---	3.6
Fe <sub>2</sub> O <sub>3</sub> (%)	---	3.1
CaO (%)	---	59.9
MgO (%)	---	4.4
SO <sub>3</sub> (%) **	3.0 max	3.5
Loss on ignition @ 950 (%)	10.0 max	6.7
Loss on ignition @ 550(%)		1.1
Insoluble residue (%)*	1.5 max	0.6
Limestone Addition		13.1
Specific Gravity (For Information Purposes Only)		3.12

## PHYSICAL ANALYSIS

Item	Spec limit	Test Result
Blaine Fineness (m <sup>2</sup> /kg)	---	552
Retained 45 um (%)	24 max	0.2
Air Content (%) (C186)	12 max	7
Compressive Strength MPa [psi] C109		
		MPa      psi
1 Day		18.8      [2,726]
3 Day	13.0 [1890] min	31.0      [4,495]
7 Day	20.0 [2900] min	36.3      [5,264]
28 Day	(Previous Month's Result) 25.0 [3620] min	42.1      [6,105]
Time of setting (minutes)		
Vicat Initial	45 min	89
Vicat Final	420 max	176
Mortar Bar Expansion (%) (C1038)	0.020 max	0.012
Colour (For Information Purposes Only)		35

### Other Chemical Information:

Na <sub>2</sub> Oeq (%) Weekly Averages	Week 1	Week 2	Week 3	Week 4
	0.55	0.50	0.49	0.47

\* Previous Month's Results

\*\* May exceed 3.0% SO<sub>3</sub> maximum based on ASTM C1038 results of <0.020% expansion at 14 days.

We certify that the above described cement, at the time of shipment, meets the chemical and physical requirements of ASTM C595/C595M-24 & AASHTO M 240-24 STANDARD SPECIFICATIONS FOR TYPE IL (12).

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



Certified to  
NSF/ANSI/CAN 61

AASHTO  
ACCREDITED

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Certified By:

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