



Cement Mill Test Report

Date of Issue: December 8, 2025

Plant:

Exshaw AB

Product:

Portland Cement Type IL (12)

Mill Test Report Number:

ESW_Type IL12 2025-11

Manufactured during the month of:

November 2025

CHEMICAL ANALYSIS

Item	Spec limit	Test Result
Rapid Method, X-Ray (XRF) (C114)		
SiO ₂ (%)	---	17.5
Al ₂ O ₃ (%)	---	3.7
Fe ₂ O ₃ (%)	---	3.1
CaO (%)	---	59.8
MgO (%)	---	4.6
SO ₃ (%) **	3.0 max	3.5
Loss on ignition @ 950 (%)	10.0 max	5.7
Loss on ignition @ 550(%)		1.0
Insoluble residue (%)*	1.5 max	0.6
Limestone Addition		11.1
Specific Gravity (For Information Purposes Only)		3.11
Phase Composition (For Information Purposes Only)		
C3A (Bogue)		4.7

PHYSICAL ANALYSIS

Item	Spec limit	Test Result	Unit
Blaine Fineness (m ² /kg)	---	521	
Retained 45 um (%)	24 max	0.4	
Air Content (%) (C186)	12 max	6	
Compressive Strength MPa [psi] C109	MPa	psi	
1 Day		20.4	[2,960]
3 Day	13.0 [1890] min	31.5	[4,561]
7 Day	20.0 [2900] min	36.4	[5,276]
28 Day <u>(Previous Month's Result)</u>	25.0 [3620] min	43.4	[6,299]
Time of setting (minutes)			
Vicat Initial	45 min	91	
Vicat Final	420 max	176	
Mortar Bar Expansion (%) (C1038)	0.020 max	0.010	
Colour (For Information Purposes Only)		35	

Other Chemical Information:

Na₂Oeq (%) Weekly Averages

Week 1 0.54

Week 2 0.55

Week 3 0.53

Week 4 0.51

* Previous Month's Results

** May exceed 3.0% SO₃ 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 (13).

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



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Certified By:

John W Blair
Quality Manager