



Cement Mill Test Report

Date of Issue: March 4, 2025

Plant: Exshaw AB
Product: Portland Cement Type IL (12) VCM Only
Mill Test Report Number: ESW_Type IL12 2025-02-VCM
Manufactured during the month of: February 2025

CHEMICAL ANALYSIS

| Item | Spec limit | Test Result |
|---|------------|-------------|
| Rapid Method, X-Ray (XRF) (C114) | | |
| SiO ₂ (%) | --- | 17.1 |
| Al ₂ O ₃ (%) | --- | 3.5 |
| Fe ₂ O ₃ (%) | --- | 3.0 |
| CaO (%) | --- | 59.6 |
| MgO (%) | --- | 4.5 |
| SO ₃ (%) ** | 3.0 max | 3.5 |
| Loss on ignition @ 950 (%) | 10.0 max | 6.8 |
| Loss on ignition @ 550(%) | | 1.0 |
| Insoluble residue (%)* | 1.5 max | 0.6 |
| Limestone Addition | | 13.6 |
| Specific Gravity (For Information Purposes Only) | | 3.12 |
| Phase Composition (For Information Purposes Only) | | |
| C3A (Bogue) | | 4.4 |

PHYSICAL ANALYSIS

| Item | Spec limit | Test Result |
|--|-----------------|--------------|
| Blaine Fineness (m ² /kg) | --- | 576 |
| Retained 45 um (%) | 24 max | 0.2 |
| Air Content (%) (C186) | 12 max | 6.7 |
| Compressive Strength MPa [psi] C109 | | MPa psi |
| 1 Day | | 20.6 [2,987] |
| 3 Day | 13.0 [1890] min | 31.6 [4,582] |
| 7 Day | 20.0 [2900] min | 36.2 [5,249] |
| 28 Day (Previous Month's Result) | 25.0 [3620] min | 42.0 [6,090] |
| Time of setting (minutes) | | |
| Vicat Initial | 45 min | 96 |
| Vicat Final | 420 max | 193 |
| Mortar Bar Expansion (%) (C1038) | 0.020 max | 0.014 |
| Colour (For Information Purposes Only) | | 36 |

Other Chemical Information:

| | | | | | | | | |
|---|--------|------|--------|------|--------|------|--------|------|
| Na ₂ Oeq (%) Weekly Averages | Week 1 | 0.52 | Week 2 | 0.48 | Week 3 | 0.51 | Week 4 | 0.53 |
|---|--------|------|--------|------|--------|------|--------|------|

* 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 (12).

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

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Certified By:


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Quality Manager

