



MaxCem® Mill Test Report

Month of Issue: May 2021

Plant: Seattle, Washington

Product: MaxCem® - Type IT(L11)(S30)MS

Shipped: April 2021

Mill Test Report Number: SEA_MAXCEM_MAY2021

ASTM C 595 and AASHTO M 240 Standard Requirements

| CHEMICAL ANALYSIS | | | PHYSICAL ANALYSIS | | |
|-------------------------|------------|-------------|---|-----------------|-------------|
| Item | Spec limit | Test Result | Item | Spec limit | Test Result |
| Rapid Method, X-Ray (C | 114) | | | | |
| | | | Air content of mortar (%) (C 185) | 12 max | 7 |
| SiO2 (%) | | 24.1 | | | |
| | | | Blaine Fineness (m2/kg) (C 204) | | 450 |
| Al2O3 (%) | | 7.1 | | | |
| | | | Fineness, Residue retained on a 45 um | | 3.3 |
| Fe2O3 (%) | | 2.6 | sieve (%) | | |
| CaO (%) | | 57.2 | Autoclave expansion (%) (C 151) | 0.80 max | 0.03 |
| . , | | | | -0.20 min | |
| MgO (%) | | 4.0 | Compressive strength (MPa, [PSI]) (C 109) | | |
| | | | 3 days | 13.0 [1890] min | 23.0 [3300] |
| Sulphate as SO3 (%) | 3.0 max* | 3.6 | 7 days | 20.0 [2900] min | 30.1 [4360] |
| Sulfide Sulfur (S) (%) | 2.0 max | 0.24 | 28 days, Previous Month | 25.0 [3620] min | 41.6 [6030] |
| Loss on ignition (%) | 10.0 max | 2.2 | Time of setting (minutes) | | |
| 3 11 (11) | | | Vicat Initial (C 191) | 45 - 420 | 138 |
| Total Alkalis (Type IL) | | 0.52 | C-1038 Expansion 14-day (%) (C 1038)* | 0.020 | 0.006 |
| Slag addition (%) | | 30 | | | |
| Richmond Type IL (%) | | 70 | | | |

^{*}Table 1 chemical requirements states that SO3 content above 3.0 is permissible if the C1038 expansion is below 0.020% at 14 days.

We certify that the above described cement, at the time of shipment, meets the chemical and physical ASTM C595 Standard Requirements and AASHTO M 240.

Certified By:

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May 10, 2021

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