



Corporate Office
1040 O'Malley Road
Anchorage, Alaska 99515
Main Office: (907) 349-3333
WWW.AIKHSI.ALB.COM

Fairbanks Terminal
1501 Well Street
Fairbanks, AK 99701
Phone: (907) 459-4840
Fax: (907) 459-4841

Anchorage Port Terminal
1300 Ocean Dock Road
Anchorage, AK 99501
Phone: (907) 348-6780
Fax: (907) 348-6781

Anchorage South Terminal
11125 Long Street
Anchorage, AK 99515
Phone: (907) 267-5150
Fax: (907) 344-2844

Cement Mill Certificate of Analysis

Alaska Basic Industries hereby certify that cement represented by this analysis complies with the current requirements for Type I and Type II of ASTM C150-11 specifications, and AASHTO M85-11.

Portland Cement: Type I/II Low Alkali

Date Shipped: September 27, 2020

Meets: ASTM C150-11 AASHTO M85-11

Lot # / Ship: #00009272020 MV Impression Bay

<u>Chemical Composition:</u>	<u>Results:</u>	<u>Type I Requirements</u>	<u>Type II Requirements</u>
Silicon Dioxide (SiO ₂):	19.8%	---	---
Aluminum Oxide (Al ₂ O ₃): %Max	4.5%	---	6.0%
Ferric Oxide (Fe ₂ O ₃):% Max	3.2%	---	6.0%
Calcium Oxide (CaO):	62.4%	---	--
Magnesium Oxide (MgO): % Max	4.0%	6.0%	6.0%
Sulfur Trioxide (SO ₃):	2.8%	3.0%	3.0%
Loss On Ignition% Max:	1.9%	3.0%	3.0%
Insoluble Residue:% Max	0.40%	0.75%	0.75%
Tricalcium Silicate (C ₃ S):	59.6	--	--
Dicalcium Silicate (C ₂ S):	11.6	--	--
Tricalcium Aluminate (C ₃ A):% Max	6.3%	--	--
Tetracalcium Aluminoferrite (C ₄ AF):	9.70%	--	--
Total Alkali as NaEq:% Max	0.58%	0.60%	0.60%
Limestone, 5 % max	1.3%	5.0%	5.0%
CaCO ₃ in Limestone, 70% min	87%	70%	70%

Physical Properties:

Blaine (min m ² /kg.):	398	260	260
Vicat, Initial Set (mins.):	140	--	--
Vicat, Final Set (mins.):	260	45-375	45-375
Autoclave Expansion:% Max	0.06%	0.80%	0.80%
False Set:	87%	--	--
Air Content (% Max by vol.):	5.20%	12.00%	12.00%

Mortar Cube Breaks:

Compressive Strength (PSI):			
1 Day	2233	--	--
3 Days	4324	1740 min	1450 min
7 Days	5405	2760 min	2470 min

Notes

1. **Test Results:** This mill test represents typical data.
2. The percent of Limestone is slowly being increased, which has no effect on the performance of concrete

3

Patrick Walter

Quality Assurance & Lab Manager
Alaska Basic Industries, Cement Division
Direct: (907) 348-6402

Type I/II

Terminals in
Anchorage • Fairbanks