Cement Mill Test Report

Plant:	**Kamloops, British Columbia**
Product:	**Portland Cement Type GUL**
Mill Test Report #	**Kamloops_Type GUL_11_24**
Manufactured:	**October 2024**

CSA A3001-23 Standard Requirements

CHEMICAL ANALYSIS

Item	Spec limit	Test Result
Rapid Method, X-Ray		
SiO2 (%)	---	20.0
Al2O3 (%)	---	4.7
Fe2O3 (%)	---	3.4
CaO (%)	---	62.7
MgO (%)	---	0.9
SO3 (%)	3.0 max*	3.1
Loss on ignition @ 950 (%)	10.0 max	2.8
Insoluble residue (%)	---	0.95
Free Lime (%)	---	1.0
Inorganic Process Addition (%)		0.0
Potential Phase Composition		
C3A%	---	7

PHYSICAL ANALYSIS

Item	Spec limit	Test Result
Air content of mortar (%) (C 185)	---	6.9
Blaine Fineness (m2/kg)	---	548
Passing 45 um (%)	72 min	1.7
Compressive strength (MPa)		
3 days	14.5 min	32.3
7 days	20.0 min	41.0
28 days (Reflects previous month's data)	26.5 min	50.0
Time of setting (minutes)		
Vicat Initial	45-375	100
Sulphate Resistance (C6)	---	0.05
A30004-C5	0.020 Max	0.00
Cement Density		3.12

CSA A3001-18 Optional Chemical Requirements:

NaEq (Alkali) (%)	0.60

* May exceed 3.0% SO3 maximum based on our A3004-C5 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 CSAS A3001 Type GUL

Certified By:

Robert S. Shogren

Robert Shogren
Technical Director
11/4/2024

Western BU
5400 W Marginal Way SW
Seattle, WA 98106

Questions or enquiries can be directed to Paul Deram

Paul Deram
Lafarge - Technical Services Engineer
7591 #9 Road, Richmond, BC, V6W 0A6 Canada
C +1 604 328 7793
E paul.deram@lafarge.com