



Certified to
NSF/ANSI/CAN 61

Cement Mill Test Report

Month of Issue: **JANUARY 2022**

Plant:	Richmond, British Columbia
Product:	Portland Cement Type GU / MS
Mill Test Report #	C-GU-22-01
Manufactured:	DECEMBER 2021

CSA A3001-18 Standard Requirements

CHEMICAL ANALYSIS			PHYSICAL ANALYSIS		
Item	Spec limit	Test Result	Item	Spec limit	Test Result
Rapid Method, X-Ray			Air content of mortar (%) (C 185)		
SiO ₂ (%)	---	20.3		---	5.5
Al ₂ O ₃ (%)	---	4.8	Blaine Fineness (m²/kg)		
Fe ₂ O ₃ (%)	---	3.3		---	350
CaO (%)	---	64.4	Passing 45 um (%) (C 430)		
MgO (%)	5.0 max	0.9		72 min	97.7
SO ₃ (%)	3.0 max*	3.0	Compressive strength (Mpa)		
Loss on ignition @ 950 (%)	3.5 max	2.8	3 days	14.5 min	25.1
Loss on ignition @ 550 (%)	3.0 max	1.1	7 days	20.0 min	32.2
Insoluble residue (%)	1.5 Max	0.4	28 days (Reflects previous month's data)	26.5 min	43.5
Potential Phase Composition			Time of setting (minutes)		
C ₃ S (%)	---	63	Vicat Initial (C 191)	45 - 375	92
C ₂ S (%)	---	11	Colour (L*)		
C ₃ A (%)	8	7			56
C ₄ AF (%)	---	10	Mortar Bar Expansion C5 (%) **	0.020 max	0.008
			Mortar Bar Resistance C6 (%) **	0.050 max	0.036

CSA A3001-18 Optimal Chemical Requirements

NaEq (Alkali) (%)	0.60 max	0.54
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* May exceed 3.0% SO₃ maximum based on our A3004-C5 results of <0.02% expansion at 14 days

** Current Production run not available - most recent provided

We certify that the above described cement, at the time of shipment, meets the chemical and physical requirements of applicable specifications for Type GU & Type MS

CSA A3001-18 STANDARD SPECIFICATIONS FOR TYPE GU / MS CEMENT;

CSA A3001-18 OPTIONAL CHEMICAL REQUIREMENTS FOR TYPES GU / MS LOW ALKALI CEMENT.

Cement complies with NSF 61

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Questions or enquiries can be directed to Matt Dalkie

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Certified By:

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