



Certified to
NSF/ANSI/CAN 61

Cement Mill Test Report

Month of Issue: MAY 2023

Plant: **Richmond, British Columbia**
 Product: **Portland Cement Type GU**
 Mill Test Report #: **C-GU-23-04**
 Manufactured: **MARCH 2023**

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 (%)	---	19.9	Blaine Fineness (m ² /kg)	---	397	
Al ₂ O ₃ (%)	---	3.9	Passing 45 um (%) (C 430)	72 min	99.2	
Fe ₂ O ₃ (%)	---	3.5	Compressive strength (Mpa)			
CaO (%)	---	62.3		3 days	14.5 min	28.5
MgO (%)	5.0 max	5.0		7 days	20.0 min	34.2
SO ₃ (%)	3.0 max*	2.8		28 days (Reflects previous month's data)	26.5 min	40.4
Loss on ignition @ 950 (%)	3.5 max	2.7	Time of setting (minutes)			
Loss on ignition @ 550 (%)	3.0 max	0.8		Vicat Initial (C 191)	45 - 375	123
Insoluble residue (%)	1.5 Max	-	Colour (L*)			
Potential Phase Composition			Mortar Bar Expansion C5 (%) **	0.020 max	-	
	C3S (%)	---	63	Mortar Bar Resistance C6 (%) **	0.050 max	-
	C2S (%)	---	10			
	C3A (%)	8	4			
	C4AF (%)	---	11			
CSA A3001-18 Optimal Chemical Requirements						
NaEq (Alkali) (%)	0.60 max	0.55				

* May exceed 3.0% SO₃ maximum based on our A3004-C5 results of <0.02% expansion at 14 days

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

CSA A3001-18 STANDARD SPECIFICATIONS FOR TYPE GU CEMENT.

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Certified By:

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 5/3/2023