



## **Cement Mill Test Report**

Month of Issue: MAY 2022

Plant: Richmond, British Columbia
Product: Portland Cement Type IL(15) MS

Mill Test Report # R-TIL-22-05
Manufactured: APRIL 2022

## **ASTM C595 - 21 Standard Requirements**

CHEMICAL ANALYSIS			PHYSICAL ANALYSIS			
Item	Spec limit	Test Result	Item	Spec limit	Test Resu	ılt
Rapid Method, X-Ray (C 114)			Air content of mortar (%) (C 185)	12 max	5.0	
SiO2 (%)		18.6				
AI2O3 (%)		4.0	Blaine Fineness (m2/kg) (C 204)		493	
Fe2O3 (%)		3.0				
CaO (%)		62.8	Passing 325 (%) (C 430)		98.9	
MgO (%)		1.4				
SO3 (%)	3.0 max*	2.9	Autoclave expansion (%) (C 151)	[-0.2 - 0.8]	0.02	
Loss on ignition @ 950 (%)	10.0 max	6.0				
NaEq (Alkali) (%)		0.50	Compressive strength (Mpa [PSI]) (C 109)			
Insoluble residue (%)		0.40			<u>Mpa</u>	PSI
			3 days	13.0 [1890] min	31.0	4500
			7 days	20.0 [2900] min	36.6	5300
			28 days (Reflects previous month's data)	25.0 [3620] min	44.4	6430
			Time of setting (minutes)			
Adjusted Potential Phase Composition***			Vicat Initial (C 191)	45-420	93	
C3S (%)		50	·			
C2S (%)		16	Mortar Bar Expansion (C 1038)*			
C3A (%)		6	14 days, % max	0.020 max	0.005	
C4AF (%)		9	-			
• •			Cement Density (C186)		3.09	

Cement meets ASTM C 1157 Type MS

We certify that the above described cement, at the time of shipment, meets the chemical and physical requirements of: ASTM C 595-21 & AASHTO M 240-21 STANDARD SPECIFICATIONS FOR TYPE IL(15), TYPE IL(15) MS CEMENT

Cement complies with NSF 61

Certified By:

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5/11/2022

<sup>\*</sup> May exceed 3.0% SO3 maximum based on our C 1038 results of <0.02% expansion at 14 days.

<sup>\*\*\*</sup> Corrected by using ASTM Calculation for Limestone Cement