



GCC Rio Grande

Manufacturing Plant:
Samalayuca, Chih., Mex.

Mailing Address:
4253 Montgomery Blvd. N.E.
Suite 210
Albuquerque, New Mex. 87109
(505) 881-5303
FAX (505) 881-5304

CEMENT MILL TEST REPORT

Report No.:	III-190131
Date produced:	01 / 1-31 /2019
Test date:	01 / 1-31 /2019
Mfg. Plant:	SAMALAYUCA
Cement Type:	III Low Alkalie
Shipping No.:	III-190131

STANDARD CHEMICAL REQUIREMENTS	SPECIFICATIONS ASTM	III	TEST RESULTS
Silicon Dioxide (SiO ₂) - Percent		A	19.9
Aluminum Oxide (Al ₂ O ₃) - Percent		A	4.92
Ferric Oxide (Fe ₂ O ₃) - Percent		A	3.32
Calcium Oxide (CaO) - Percent		A	63.9
Magnesium Oxide (MgO) - Percent	Maximum >	6.0	1.8
Sulfur Trioxide (SO ₃)- Percent	Maximum >	3.5	3.24
Loss on Ignition - Percent	Maximum >	3.0	1.71
Insoluble Residue - Percent	Maximum >	0.75	0.35
Carbon dioxide (CO ₂) - Percent		A	0.61
Limestone content --Percent	Maximum >	5.0	1.47
Corrected Limestone -Percent	Maximum >	5.0	0.00
CaCO ₃ in Limestone - Percent	Minimum >	70.0	94.0
Tricalcium Silicate (C ₃ S) - Percent		A	62
Dicalcium Silicate (C ₂ S) - Percent		A	10
Tricalcium Aluminate (C ₃ A)* - Percent	Maximum >	8.0	7.4
Tetracalcium Aluminoferrite (C ₄ AF) - Percent		A	10
C ₄ AF + 2 (C ₃ A) or C ₄ AF + C ₂ F - Percent		A	25
Alkalies (Sodium Oxide Equivalent) - Percent *	Maximum >	0.60	0.54
STANDARD PHYSICAL REQUIREMENTS			
Specific Surface , Blaine ,m ² /kg		A	574
- 325 Mesh - Percent		A	99.5
Compressive Strengths,psi (MPa)(C 109 cubes)			
psi (MPa)		psi (Mpa)	
1 DAY	Minimum >	1740 (12.0)	4010 (27.6)
3 DAYS	Minimum >	3480 (24.0)	5745 (39.6)
7 DAYS		A	6580 (45.4)
28 DAYS		A	7600 (52.4)
Time of Setting (Vicat)			
Initial ,minutes	Minimum >	45	103
Final ,minutes	Maximum >	375	263
False Set - Percent	Minimum >	50	72
Air Content of Mortar - Percent	Maximum >	12	6.9
Autoclave Expansion - Percent	Maximum >	0.80	0.01
Mortar Bar Expansion (ASTM C -1038) - Percent	Maximum >	0.020	

A= Not applicable

Samples will be retained by 3 months.

RIO GRANDE PORTLAND CEMENT IS WARRANTED TO CONFORM AT THE TIME OF SHIPMENT WITH ASTM C -150 NO OTHER WARRANTY IS MADE OR IMPLIED. HAVING NO CONTROL OVER THE USE OF IT'S CEMENTS , RIO GRANDE PORTLAND DOES NOT GUARANTEE FINISHED WORK.

p.a.

SAMALAYUCA PLANT - TECHNICAL MANAGER