



Mill Test Certificate Report - White Cement

**Type: I per ASTM C150
and AASHTO M85**

Test Period: April-16

Certification

We certify the cement described here, at the time of shipment, meets chemical and physical requirements of the current ASTM C-150, and AASHTO M-85 specifications for Type I. We further certify that at the time of shipment it meets the ASTM C-150 Optional Requirement^C for low alkali cement having less than 0.6% Equivalent Alkalies (Na₂O + 0.658K₂O). We are not responsible for improper use or workmanship.

General Information

Supplier: Lehigh White Cement Company

Source Location: York Plant

Address: 200 Hokes Mill Road
York, PA 17404

Consignee:
Address:

Test Data on ASTM "Standard" Requirements and Results

Chemical and Physical Requirements and Results of Tests

Item	Unit	Limit	Results	Item	Unit	Limit	Results	
SiO ₂	%	A	21.4	Fineness:				
Al ₂ O ₃	%	A	3.8	Passing 45µm (No. 325)	%	A	98.3	
Fe ₂ O ₃	%	A	0.4	Blaine Fineness	m ² /kg	260 min	542	
CaO	%	A	67.0					
MgO	%	6.0 max	1.4	Autoclave Expansion	%	0.80 max	0.08	
SO ₃	%	3.5 max ^B	2.8					
Equivalent Alkalies	%	0.60 max ^C	0.05	Air Content	%	12 max	5	
Loss on Ignition	%	3.5 max	3.0					
Insoluble Residue	%	1.5 max	0.18	Time of setting; Vicat test:	minutes	45 min	110	
CO ₂	%	A	1.8	Time of setting; Vicat test:	minutes	375 max		
Limestone	%	5.0 max	4.5	Final time of setting; Vicat test:	minutes	A	205	
CaCO ₃ in Limestone	%	70 min	97					
Potential Compounds:				Compressive Strengths		Limit	Results	Results
C ₃ S	%	A	67	1-Day	MPa ^D	MPa ^D	psi	
C ₂ S	%	A	11	3-Day	A	20.0	2,900	
C ₃ A	%	A	9	7-Day	12.0 min	38.2	5,539	
C ₄ AF	%	A	1	28-Day ^E	19.0 min	44.4	6,438	
					A	52.7	7,642	

^ANot Applicable.

^BPermissible to exceed SO₃ limit provided ASTM C1038 testing demonstrates expansion in water will not exceed 0.020 % at 14 days.

^COptional Limit for Equivalent Alkalies (Na₂O + 0.658K₂O) %

^D1 MPa = 145 psi

^EFrom Previous Month

May 8, 2016

Date

Rick Ashton

Quality Control Manager