



Central Plains Cement Company

Cement Mill Test Report

Month of Issue: February 2018

Plant:	Tulsa, OK
Product:	Portland Cement Type V
Silos:	5,A,B
Manufactured:	Nov 13, 2017 to Dec 07, 2017

ASTM C 150-16 and AASHTO M 85-16 Standard Requirements

CHEMICAL ANALYSIS			PHYSICAL ANALYSIS		
Item	Spec limit	Test Result	Item	Spec limit	Test Result
Rapid Method, X-Ray (C 114)			Air content of mortar (%) (C 185)	12 max	6
SiO ₂ (%)	---	21.4	Blaine Fineness (m ² /kg) (C 204)	260 min	449
Al ₂ O ₃ (%)	---	3.8	-325 (%) (C 430)	---	93.5
Fe ₂ O ₃ (%)	---	4.3	Autoclave expansion (%) (C 151)	-0.2 min 0.80 max	-0.07
CaO (%)	---	63.4	Compressive strength (PSI) (C 109)		
MgO (%)	6.0 max	1.8	1 day	---	2730
SO ₃ (%)	2.3 max*	2.9	3 days	1160 min	3770
Loss on ignition (%)	3.0 max	1.0	7 days	2180 min	4550
Insoluble residue (%)	0.75 max	0.24	28 days (Reflects previous month's data)	3050 min	5760
CO ₂ (%)	---	0.3	Time of setting (minutes)		
Limestone (%)	5.0 max	---	Vicat Initial (C 191)	45 - 375	108
CaCO ₃ in Limestone (%)	70 min	---			
Inorganic Process Addition	5.0 max	---			
Adjusted Potential Phase Composition (C 150)					
C ₃ S (%)	---	55			
C ₂ S (%)	---	20			
C ₃ A (%)	5 max	3			
C ₄ AF (%)	---	13			
C ₄ AF+2*C ₃ A (%)	25 max	19			

ASTM C 150-16 and AASHTO M 85-16 Optional Chemical Requirements:

NaEq (%)	---	0.46
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* Cement with SO₃ > 2.3 complies with ASTM C1038-10

We certify that the above described cement, at the time of shipment, meets the chemical and physical requirements of ASTM C 150-16 & AASHTO M 85-16 STANDARD SPECIFICATIONS FOR TYPE V CEMENT.

Certified By:

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