



Central Plains Cement Company

Cement Mill Test Report

Month of Issue: May 2018

Plant:	Tulsa, OK
Product:	Portland Cement Type V
Silos:	5
Manufactured:	April 2018

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	10
SiO ₂ (%)	---	20.7	Blaine Fineness (m ² /kg) (C 204)	260 min	444
Al ₂ O ₃ (%)	---	4.0	-325 (%) (C 430)	---	92.5
Fe ₂ O ₃ (%)	---	4.5	Autoclave expansion (%) (C 151)	-0.2 min 0.80 max	-0.04
CaO (%)	---	63.1	Compressive strength (PSI) (C 109)		
MgO (%)	6.0 max	1.9	1 day	---	2030
SO ₃ (%)	2.3 max*	3.0	3 days	1160 min	3360
Loss on ignition (%)	3.0 max	1.0	7 days	2180 min	4220
Insoluble residue (%)	0.75 max	0.23	28 days (Reflects previous month's data)	3050 min	5480
CO ₂ (%)	---	0.4	Time of setting (minutes)		
Limestone (%)	5.0 max	---	Vicat Initial (C 191)	45 - 375	135
CaCO ₃ in Limestone (%)	70 min	---			
Inorganic Process Addition	5.0 max	---			
Adjusted Potential Phase Composition (C 150)					
C ₃ S (%)	---	57			
C ₂ S (%)	---	16			
C ₃ A (%)	5 max	3			
C ₄ AF (%)	---	14			
C ₄ AF+2*C ₃ A (%)	25 max	20			

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

NaEq (%)	---	0.44
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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:

John Tierney

May 15, 2018

Central Plains Cement Co. LLC - Tulsa Plant
2609 North 145th East Ave
Tulsa, OK 74012
918-437-3902