



# Cement Mill Test Report

Month of Issue: August 2022

Plant: Newberry Plant, Fl.  
 Product: Portland Cement Type III  
 Silo: 7  
 Manufactured: July 2022

## ASTM C150 and AASHTO M 85 Standard Requirements

CHEMICAL ANALYSIS			PHYSICAL ANALYSIS		
Item	Spec limit	Test Result	Item	Spec limit	Test Result
Rapid Method, X-Ray (C114)			Air content of mortar (%) (C185)		
SiO <sub>2</sub> (%)	---	19.1		12 max	7.5
Al <sub>2</sub> O <sub>3</sub> (%)	---	4.7	Blaine Fineness (m <sup>2</sup> /kg) (C204)		
Fe <sub>2</sub> O <sub>3</sub> (%)	---	3.3		---	574
CaO (%)	---	63.3	-325 (%) (C430)		
MgO (%)	6.0 max	1.1		---	99.2
SO <sub>3</sub> (%)*	3.5 max	3.9	Density of Cement (g/cm <sup>3</sup> ) (C188)		
Loss on ignition (%)	3.5 max	2.5		---	3.13
Insoluble residue (%)	1.5 max	0.74	Compressive strength (MPa, [PSI]) (C109)		
Na <sub>2</sub> O <sub>Eq</sub> (%)	---	0.42	1 day	12.0 [1740] min	24.7 [3580]
CO <sub>2</sub> (%)	---	---	3 days	24.0 [3480] min	37.0 [5360]
Limestone (%)	5.0 max	---	7 days	---	43.3 [6280]
CaCO <sub>3</sub> in Limestone (%)	70 min	---	28 days (Reflects previous month's data)	---	50.1 [7260]
Inorganic Process Addition	5 max	4.0	Time of setting (minutes)		
Adjusted Potential Phase Composition (C150)			Vicat Initial (C191)	45 - 375	90
C <sub>3</sub> S (%)	---	59	Mortar Bar Expansion (%) (C1038)*		
C <sub>2</sub> S (%)	---	10		0.020 max	0.001
C <sub>3</sub> A (%)	15 max	7			
C <sub>4</sub> AF (%)	---	10			

\* May exceed 3.0% SO<sub>3</sub> maximum based on our C1038 results of <0.02% expansion at 14 days.

\* Current Production run not available - most recent provided

We certify that the above described cement, at the time of shipment, meets the chemical and physical requirements of applicable GDOT, FDOT Specifications for Type III CEMENT; ASTM C150 & AASHTO M 85 STANDARD SPECIFICATIONS FOR TYPE III CEMENT;

Certified By:

*Glen Farrar*

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