



Cement Mill Test Report

Month of Issue: November 2023

Plant:	Atlanta, GA
Product:	EcoStrong PLC Type IL (10) HE MS
Silo:	Silo 1, 2, 7, 8
Manufactured:	October 2023

ASTM C595 and 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)	12 max	7
SiO ₂ (%)	---	18.2	Blaine Fineness (m ² /kg) (C204)	---	619
Al ₂ O ₃ (%)	---	4.4	Fineness, No. 325 sieve, (% retained) (C430)	---	0.1
Fe ₂ O ₃ (%)	---	3.1	Density of Cement (g/cm ³) (C188)	---	3.10
CaO (%)	---	61.9	Compressive strength (MPa, [PSI]) (C109)		
MgO (%)	---	2.9	1 day	12.0 [1740] min	23.7 [3440]
SO ₃ (%)	3.0 max *	3.3	3 days	24.0 [3480] min	35.6 [5160]
Loss on ignition (%)	10.0 max	5.0	7 days	---	40.3 [5840]
Na ₂ O _{Eq} of Base Cement(%)	---	0.37 §	28 days (previous month's data)	---	45.2 [6550]
CO ₂ (%)	---	4.1	Time of setting (minutes)		
Limestone (%)	5 to 15	9.5	Vicat Initial (C191)	45 - 420	111
CaCO ₃ in Limestone (%)	70 min	98	Mortar Bar Expansion (%) (C1038)	0.020 max	0.008
Inorganic Process Addition	---	0.0			
Baghouse Dust					

Optional Chemical Information:

Physical Requirements for Blended Cements With Special Properties:

Sulfate Resistance (% Expansion) (C1012) 0.10 max 0.06 at 180 days

--- Not applicable

* May exceed 3.0% SO₃ maximum based on our Test Method C1038 results of < 0.020 % expansion at 14 days.

§ Please refer to ASTM C1778 or for guidance on reducing the risk of alkali aggregate reaction in concrete.

We certify that the above described cement at the time of shipment meets the chemical and physical requirements of applicable standards of ASTM C595, ALDOT, FDOT Section 921, GDOT, NCDOT Specifications for Type IL, SCDOT, TDOT

Certified By:

Argos USA - Atlanta Plant
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Sonya Becknel - Quality Manager
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