ASH GROVE CEMENT COMPANY

Sumterville Plant
4750 E County Road 470
Sumterville, Florida 33585
Phone #: (352)-559-9974

Blended Cement Type: IL(13) (MS)

Production Period March 1, 2024 - March 31, 2024 Date: April 15, 2024

ASTM C595/C595M
REQUIREMENTS

Silos: 1, 2, 3, 5

CHEMICAL

Item	Spec. Limit	Test Result
Sulfate as SO_3 (%)	3.0 max[A]	3.1
Loss on ignition (%)	10.0 max	6.5
Equivalent alkali content of Portland Cement (Na_2O_{eq} %)[F]	[B]	0.34
Limestone (%)	>5 and ≤15	11.8
$CaCO_3$ in limestone (%)	70 min	92
Optional information		
Equivalent alkali content of finished cement (Na_2O_{eq} %)	[B]	0.30

PHYSICAL

Item	Spec. Limit	Test Result
Air content of mortar (volume %)	12 max	3.9
Blaine Fineness (m^2/kg)	[B]	5,007
Fineness, No. 325 sieve (% retained)	[B]	1.1
Density (g/cm^3)	[B]	3.05
Compressive strength (psi)		
1 day	[B]	2,340
3 days	1,890 min	4,270
7 days	2,900 min	5,520
28 days[E]	3,620 min	6,830
Time of initial setting (Vicat)		
Not less than (minutes)	45	95
Not more than (minutes)	420	224
Heat of hydration, C1702/1702M, (kJ/kg)[C]		
3 days	[B]	269
Mortar Bar Expansion, C1038/C1038M, (%)[C]	0.020 max[D]	0.009
Sulfate resistance, C1012/1012M, (%)[C]		
Expansion at 180 days	0.10 max	0.05

Additional Data

Item	Limestone	Inorganic Processing Addition
Amount	11.8	1.0
SiO_2 (%)	4.1	9.7
Al_2O_3 (%)	0.4	1.4
Fe_2O_3 (%)	0.2	4.6
CaO (%)	52.5	47.1
SO_3 (%)	0.1	0.2

[A] Default table maximum may be exceeded if Test Method ASTM C1038/C1038M limit is met.

[B] Not applicable.

[C] Test results for this production period not available. Most recent test result provided.

[D] Required only if percent SO_3 exceeds the limit in Table 1.

[E] Test result based on most recent monthly production time period.

[F] As per ASTM C1778, Portland Cement is defined as "Clinker + Gypsum" constituents and is to be used for calculating equivalent alkalis in the base cement.

We certify that the above described blended cement, at the time of shipment, meets the chemical and physical requirements of the ASTM C595/C595M Type IL(MS) and AASHTO M240 Blended Hydraulic Cement specifications as well as all applicable FDOT (Facility ID: CMT40) and GDOT (Source Code: 17) specifications for Type IL(MS) Cement.

Signature:

Name: Ramón L. Olivero

Title: Quality Control Manager