Central Plains Cement Company

Type IS(25) Mill Test Report

Month of Issue: Jan-22

Plant:	**Sugar Creek Plant**
Product:	**Type IS(25)**
Shipped:	**Dec-21**
Manufactured:	**Jun-21**

The current version of ASTM C 595 and AASHTO M 240 Standard Requirements

CHEMICAL ANALYSIS

Item	Spec limit	Test Result
Rapid Method, X-Ray *(C 114)*		
SiO2 (%)	---	24.3
Al2O3 (%)	---	5.5
Fe2O3 (%)	---	2.5
CaO (%)	---	57.6
MgO (%)	---	3.5
Sulfur as SO3 (%)	3.0 max*	3.0
Sulfur as Sulfide(%)	2.0 max	0.17
Loss on ignition (%)***	3.0 max	2.7
Insoluble residue (%)	1.0 max	0.38
Total Alkalis	---	0.52

PHYSICAL ANALYSIS

Item	Spec limit	Test Result
Air content of mortar (%) *(C 185)*	12 max	8
Blaine Fineness (m2/kg) *(C 204)*	---	382
Fineness, Residue retained on a 45 µm sieve (%)	---	2.7
Autoclave expansion (%) *(C 151)*	0.80 max - 0.20 min	0.01
Compressive strength (PSI) *(C 109)*		
3 days	1890 min	3310
7 days	2900 min	4700
28 days	3620 min	6870
Time of setting (minutes)		
Vicat Initial *(C 191)*	45 - 420	123
Mortar Bar Expansion (%) *(C 1038)**	0.020 max	0.008
Specific Gravity (C188)	---	3.08

* May exceed 3.0% SO3 maximum based on our C 1038 results of <0.02% expansion at 14 days.

** Corrected for loss in S^2 at 950°C for 15 min

We certify that the above described cement meets the chemical and physical requirements for the current version of ASTM C 595 & AASHTO M 240 STANDARD.

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Certified By:

Paul Engel

Paul Engel - Quality Coordinator

1/10/2022