



TEC SERVICES
Testing * Engineering * Consulting

Mill Test Certificate Report

Type: Portland Cement Type I/II
Source: Hereke
Vessel: Medi Egeo
Client ID: MV Medi Egeo Corpus Christi

Date: 6-Nov-2020
TEC ID: 20-1194

Certification

SGS TEC Services is an AASHTO R18, ANSI/ISO/IEC 17025:2005, and Army Corps of Engineers accredited laboratory. This certifies that the described cement, at the time of shipment, meets chemical and physical requirements of the current applicable specification for ASTM C 150 & AASHTO M-85 for type I and Type I/II (MH). We are not responsible for improper use or workmanship.

General Information

Supplier: South Texas Cement
Address: 3580 F.M. 482
New Braunfels, TX 78132
Telephone: 512-422-3937

Source Location: Hereke Plant
Tested by SGS TEC Services
Contact: Dean Roosa (770) 995-8000

Tests Data on ASTM "Standard" Requirements

Chemical**				Physical			
Item	ASTM	Limit	Result	Item	ASTM	Limit	Result
SiO ₂ (%)	C 114	-	19.5	Flow (%)	C 1437	-	132
Al ₂ O ₃ (%)	C 114	6.0 max	5.0	Blaine Fineness (m ² /kg)	C 204	260-430	415
Fe ₂ O ₃ (%)	C 114	6.0 max	3.71	Normal Consistency (%)	C 187	-	26.6
CaO (%)	C 114	-	63.9	Autoclave Expansion (%)	C 151	0.80 max	0.00
MgO (%)	C 114	6.0 max	2.08	Vicat Setting Time:	C 191		
SO ₃ (%)**	C 114	3.0 max	2.58	Initial Vicat (minutes)	C 191	45-375	112
Na Eqv (%)	C 114	-	0.56	Final Vicat (minutes)	C 191	-	215
Loss on Ignition (%)****	C 114	3.0 max	2.2	Air Content (%)	C 185	12 max	9
Insoluble Residue (%)	C 114	1.5 max	0.71	False Set (%)	C 451	50 min	90
Limestone Addition (%)	C 114	5 max	NA				
Inorganic Processing Addition (%)	C 114	5.0 max	NA				
C ₃ S + 4.75 * C ₃ A (%)	C 114	100 max	98	Compressive Strength MPa:	C 109/C 109M		
				1 Day	C 109/C 109M	-	15.9
				3 Day	C 109/C 109M	12.0 min	27.1
				7 Day	C 109/C 109M	19.0 min	33.2
				28 Day	C 109/C 109M	28.0 min	41.5
Potential Compounds:	C 114						
C ₃ S (%)	C 114	-	66				
C ₂ S (%)	C 114	-	6	Compressive Strength PSI:	C 109/C 109M		
C ₃ A (%)	C 114	8 max	7	1 Day	C 109/C 109M	-	2300
C ₄ AF (%)	C 114	-	11	3 Day	C 109/C 109M	1740 min	3930
				7 Day	C 109/C 109M	2760 min	4810
				28 Day	C 109/C 109M	4060 min	6020

Notes

*Indicates items not meeting ASTM C150-20 and AASHTO M85-20.
** No adjustment has been made for possible use of limestone or inorganic processing additions.
**** If Limestone is added it is 3.5%

Dean T. Roosa
Project Manager

Shawn P. McCormick
Laboratory Principal