



Plant: Midlothian Cement 245 Ward Rd. Midlothian, TX 76065

**SPECIFICATIONS**

Portland Cement  
Type III  
A.S.T.M C150-21

Bin Number:	Car Number:	Tons:
Sample Date: February-2023 Monthly Average		

<b>Chemical Requirements:</b>	<b>Spec. Limit</b>	<b>Test Result</b>
SiO <sub>2</sub> , (%)	A	19.9
Al <sub>2</sub> O <sub>3</sub> , (%)	6.0 max	5.1
Fe <sub>2</sub> O <sub>3</sub> , (%)	6.0 max	3.5
CaO, (%)	A	63.8
MgO, (%)	6.0 max	1.1
SO <sub>3</sub> , (%)	3.5 max	3.3
Loss on Ignition, (%)	3.0 max	2.3
Insoluble Residue, (%)	1.5 max	0.29
CO <sub>2</sub> , (%)	A	-
Limestone, (%)	5.0 max	-
CaCO <sub>3</sub> in limestone, (%)	70 min	-
Potential phase composition, (%): <sup>B</sup>		
C3S	A	60
C2S	A	12
C3A	8 Max	7
C4AF	A	11

<b>Physical Requirements:</b>	<b>Spec. Limit</b>	<b>Test Result</b>
Air Content, Volume, (%)	12 max	8
Average Fineness (Blaine), (m <sup>2</sup> /kg)	A	533
Autoclave Expansion, (%)	0.80 max	-0.01
<b>Time of Setting:</b>		
Vicat initial set, minutes	45 min	82
	375 max	
<b>Compressive strengths, (Mpa)</b>		
1 day	12.0 min	21.0
3 days	24.0 min	29.5
<b>Compressive strengths, (psi)</b>		
1 day	1740 min	3045
3 days	3480 min	4284

<b>Optional Chemical Requirements:</b>	<b>Spec. Limit</b>	<b>Test Result</b>
Total Alkalies (Na <sub>2</sub> O equiv.), (%)	A	0.53

<sup>A</sup> Not Applicable.

<sup>B</sup> Adjusted for limestone per A1.6

We certify that the above described cement, at the time of shipment meets the chemical and physical requirements of ASTM C - 150 specification.

Todd Camp - Area QC Manager

3/17/2023

Date