



## WHITE PORTLAND CEMENT "WHITE ELEPHANT" BRAND

PHYSICAL PROPERTIES	ASTM Standard			Typical Test Result			
Whiteness (Hunter)	-			93-94			
Fineness specific surface							
Air permeability test	cm <sup>2</sup> /g	Min. 2800		3700 - 4000			
Time of setting							
Vicat test : Initial set	minute	Min. 45		150 - 230			
Final set	minute	Max. 375		290 - 320			
Soundness : Autoclave expansion	%	Max. 0.8		0.00 - 0.02			
Air content of mortar	%	Max. 12.0		2.0 - 5.0			
False set	%	Min. 50		60 - 80			
Compressive strength (mortar cubes)	Kgf/cm <sup>2</sup>	Mpa	psi	Kgf/cm <sup>2</sup>	Mpa	psi	
3 days	Min	122	12.0	1740	220-250	21.5-24.5	3146 - 3575
7 days	Min	194	19.0	2760	300-350	29.4-34.3	4290 - 5005
28 days	Min	285	28.0	4060	450-500	44.1-49.0	6435 - 7150
CHEMICAL PROPERTIES	ASTM Standard			Typical Test Result			
Silicon dioxide (SiO <sub>2</sub> )	%	-			23.0 - 24.0		
Aluminium oxide (Al <sub>2</sub> O <sub>3</sub> )	%	-			4.5 - 5.3		
Ferric oxide (Fe <sub>2</sub> O <sub>3</sub> )	%	-			0.15 - 0.30		
Calcium oxide (CaO)	%	-			65.5 - 67.5		
Magnesium oxide (MgO)	%	Max. 5.0			0.7 - 1.0		
Sulfur trioxide (SO <sub>3</sub> )	%						
when C <sub>3</sub> A > 8.0		Max. 3.5			2.8 - 3.3		
Total Alkali as Na <sub>2</sub> O	%	Max. 0.6			0.10 - 0.15		
Loss on ignition	%	Max. 3.0			2.0 - 2.8		
Insoluble residue	%	Max. 0.75			0.1 - 0.3		
Tricalcium silicate (C <sub>3</sub> S)	%	-			45 - 60		
Dicalcium silicate (C <sub>2</sub> S)	%	-			27 - 34		
Tricalcium aluminate (C <sub>3</sub> A)	%	-			11 - 14		

ASTM C 150 - 07

Approved by: \_\_\_\_\_

Date

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 25/04/55