



ACC

Doc.no.: WD/LAB/FM/07

Wadi Cement Work Ordinary Portland Cement 43 grade

Week No. 03 (15.01.2017 to 21.01.2017)

Sl.no.	Characteristics	Unit	Actual	IS 8112 :2013 specified requirement
1	Chemical characteristics			
	Magnesia (MgO)	%	0.8	Max. 6.0
	Sulphuric anhydride (SO ₃)	%	2.8	Max. 3.5
	Chloride (Cl ⁻)	%	0.024	1. Max. 0.1 for structures other than prestressed concrete 2. Max. 0.05 for Prestressed concrete structures
	Insoluble Residue (IR)	%	0.4	Max. 5.0
	Loss on Ignition	%	1.7	Max. 5.0
	Lime Saturation Factor (LSF)		0.9	0.66 to 1.02
	Ratio of percentage of Alumina to that of Iron oxide		1.26	Min. 0.66
	Tri Calcium Aluminate (C ₃ A)	%	6.85	-
2	Physical characteristics			
	Fineness (by Blaine method)	m ² /kg	290	Min. 225
	Soundness			
	(a) Le chatelier method	mm	1.0	Max. 10
	(b) Autoclave test method	%	0.09	Max. 0.8
	Setting time			
	(a) Initial Setting Time (IST)	Minutes	130	Min. 30
	(b) Final Setting Time (FST)	Minutes	185	Max. 600
	Compressive Strength			
	(a) 3-days	MPa	33.8	23
	(b) 7-days	MPa	42	33
	(c) 28-days	MPa	Awaited	Min. 43 and Max. 58
	Normal consistency	%	27.5	-
	Temperature during Testing	°C	27+/-2	27+/-2
	Percentage of Performance Improver	%	Nil	Max. 5

Head Quality Assurance