



Doc.no.: WD/LAB/FM/08

Wadi Cement Work
Ordinary Portland Cement 53 grade

Week No. 39 (23.09.2016 to 29.09.2016)

Sl.no.	Characteristics	Unit	Actual	IS 12269 :2013 specified requirement
1	Chemical characteristics			
	Magnesia (MgO)	%	0.9	Max. 6.0
	Sulphuric anhydride (SO ₃)	%	2.9	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. 4.0
	Loss on Ignition	%	1.9	Max. 4.0
	Lime Saturation Factor (LSF)		0.89	0.80 to 1.02
	Tri Calcium Aluminate (C ₃ A)	%	6.71	-
2	Physical characteristics			
	Fineness (by Blaine method)	m ² /kg	317	Min. 225
	1.5			
	(a) Le chatelier method	mm	1.0	Max. 10
	(b) Autoclave test method	%	0.05	Max. 0.8
	Setting time			
	(a) Initial Setting Time (IST)	Minutes	145	Min. 30
	(b) Final Setting Time (FST)	Minutes	200	Max. 600
	Compressive Strength			
	(a) 3-days	MPa	38.7	27
	(b) 7-days	MPa	47.4	37
	(c) 28-days	MPa	Awaited	53
	Normal consistency	%	28	-
	Temperature during Testing	°C	27+/-2	27+/-2


Head Quality Assurance