



Doc.no.: WD/LAB/FM/09

Wadi Cement Work

Portland Pozzolana Cement (Fly ash based)

Week No. 47 (18.11.2016 to 24.11.2016)

Sl.no.	Characteristics	Unit	Actual	IS 1489 (Part 1) : 1991 specified requirement
1	Chemical characteristics			
	Magnesia (MgO)	%	1.0	Max. 6.0
	Sulphuric anhydride (SO ₃)	%	2.9	Max. 3.5
	Chloride (Cl ⁻)	%	0.021	1. Max. 0.1 for structures other than prestressed concrete 2. Max. 0.05 for Prestressed concrete structures
	Insoluble Residue (IR)	%	27.0	$x + (4*(100-x))/100$
	Loss on Ignition	%	1.9	Max. 5.0

2	Physical characteristics			
	Fineness (by Blaine method)	m ² /kg	349	Min. 300
	Soundness			
	(a) Le chatelier method	mm	0.5	Max. 10
	(b) Autoclave test method	%	0.003	Max. 0.8
	Setting time			
	(a) Initial Setting Time (IST)	Minutes	150	Min. 30
	(b) Final Setting Time (FST)	Minutes	215	Max. 600
	Compressive Strength			
	(a) 3-days	MPa	28.8	16
	(b) 7-days	MPa	37.4	22
	(c) 28-days	MPa	Awaited	33
	Normal consistency	%	30.5	-
	Temperature during Testing	°C	27+/-2	
	Fly ash content	%	30.7	27+/-2

Note: X- is the declared percentage of fly ash in the Portland Pozzolana Cement

Head Quality Assurance