



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

**Wadi Cement Work**

**Portland Pozzolana Cement (Fly ash based)**

**Week No. 26**

Sl.no.	Characteristics	Unit	Actual	IS 1489 (Part 1) : 1991 specified requirement
<b>1</b>	<b>Chemical characteristics</b>			
	Magnesia (MgO)	%	1.1	Max. 6.0
	Sulphuric anhydride (SO <sub>3</sub> )	%	2.5	Max. 3.0
	Chloride (Cl <sup>-</sup> )	%	0.012	1. Max. 0.1 for structures other than prestressed concrete 2. Max. 0.05 for Prestressed concrete structures
	Insoluble Residue (IR)	%	27.3	$x + (4*(100-x))/100$
	Loss on Ignition	%	1.9	Max. 5.0
<b>2</b>	<b>Physical characteristics</b>			
	Fineness (by Blaine method)	m <sup>2</sup> /kg	347	Min. 300
	<b>Soundness</b>			
	(a) Le chatelier method	mm	0.5	Max. 10
	(b) Autoclave test method	%	0.007	Max. 0.8
	<b>Setting time</b>			
	(a) Initial Setting Time (IST)	Minutes	155	Min. 30
	(b) Final Setting Time (FST)	Minutes	210	Max. 600
	<b>Compressive Strength</b>			
	(a) 3-days	MPa	28.3	16
	(b) 7-days	MPa	36.9	22
	(c) 28-days	MPa	Awaited	33
	Normal consistency	%	30	-
	Temperature during Testing	°C	27+/-2	
	Fly ash content	%	31.0	-

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

  
Head Quality Assurance