

**DASTAN, PALSANA, DIST. SURAT (GUJ.)**  
**TEST CERTIFICATE FOR PORTLAND POZZOLANA CEMENT**  
 LICENCE NO. CM/L-7200051895

Week No : 20 (14.05.2018 to 20.05.2018)

Date of Issue : 26.06.2018

Sr. No	Particulars	IS Clause	Test Method	Requirement of IS:1489 (Part-I)	Results Obtained
<b>Chemical Requirements</b>					
1	Loss on ignition(% by mass)	6	IS : 4032 - 1985	Not more than 5.0	<b>1.80</b>
2	Magnesia(% by mass)		IS : 4032 - 1985	Not more than 6.0	<b>2.36</b>
3	Sulphuric Anhydride (SO <sub>3</sub> )(% by mass)		IS : 4032 - 1985	Not more than 3.5	<b>2.89</b>
4	Insoluble Residue(% by mass)		IS : 4032 - 1985	$\frac{4(100-x)}{x+100}$ (x=where x is the declare % age of Fly Ash)	<b>23.56</b>
5	Chloride(% by mass)		IS : 4032 - 1985	Not more than 0.1	<b>0.019</b>
6	Declared % of Fly Ash ( $\leq$ )		-	-	Not less than 15% and Not more than 35%
<b>Physical Requirements</b>					
1	Fineness (m <sup>2</sup> /kg)	7	IS : 4031 (Part-2) - 1999	Not less than 300	<b>381</b>
2	Normal Consistency (%)		IS : 4031 (Part-4) - 1988	-	<b>34.25</b>
3	Soundness : a) Le-chatelier expansion (mm) b) Autoclave test expansion (%)		IS : 4031 (Part-3) - 1988	Not more than 10 Not more than 0.8	<b>0.5</b> <b>0.052</b>
4	Setting Time : a) Initial setting time (minutes) b) Final setting time (minutes)		IS : 4031 (Part-5) - 1988	Not less than 30 Not more than 600	<b>140</b> <b>185</b>
5	Compressive Strength : a) 72 $\pm$ 1 Hours (3 Days) (MPa) b) 168 $\pm$ 2 Hours (7 Days) (MPa) c) 672 $\pm$ 4 Hours (28 Days) (MPa)		IS : 4031 (Part-6) - 1988	Not less than 16 Not less than 22 Not less than 33	<b>30.0</b> <b>39.6</b> <b>51.5</b>
6	Drying Shrinkage (%)		IS : 4031 (Part-10) - 1988	Not more than 0.15	<b>0.054</b>

REMARKS : The test results complies with the requirements of IS: 1489(Part-I) (PPC) for All Chemical requirements and Physical requirements including Compressive Strength up to **28-days** . Test Protocol IS : 4032 and IS : 4031 .

*R.A. Alad*

Officer

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Authorized Signatory