

**ORIENT  
CEMENT**

AN  
ISO 9001  
ISO 14001  
OHSAS 18001  
& TPM COMPANY

**IS 1489**



(PART-1)

**CM/L-7398292**

**Mazbooti mein A1  
Bharose mein A1**



**ORIENT CEMENT LIMITED  
QUALITY CONTROL LABORATORY  
NASHIRABAD, JALGAON (MS)**

Phone No. – 0257-2356289 Fax No. - 0257 - 2356290  
E-mail : [cgu.lab@orientcement.com](mailto:cgu.lab@orientcement.com)



NABL Accredited Laboratory  
C.No.T-2027 & T-2028

**PORTLAND  
POZZOLANA  
CEMENT**

**TEST CERTIFICATE**

No.: C-14/37A  
Date :23/10/2014

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

Name and address of the customer : Despatch Deptt., Orient Cement Ltd., Jalgaon

Test request reference No. and Date : 37 A, 17/09/2014

Customer identification of sample : Avg. Sample of Week No. 37/14 (10/09/2014 to 16/09/2014)

Date of receipt of sample : 17/09/2014

Period / Date of testing: 17/09/2014 to 22/10/2014)

Laboratory code No. of sample : OCL/14/37A

S No	Tests Carried out	Tested as per	Results obtained	Requirements as per Specification IS:1489(Part-I)-1991
<b>CHEMICAL PARAMETERS</b>				
1	Loss on ignition (LOI)	IS:4032-1985	0.80	5.0 % by mass <b>Max.</b>
2	Insoluble Material (IM)	IS:4032-1985	29.46	X + $\frac{4.0(100-X)}{100}$ % by mass <b>Max.</b> Where, X = Declared % of pozzolana
3	Magnesia (MgO)	IS:4032-1985	1.47	6.0 % by mass <b>Max.</b>
4	Sulphuric anhydride (SO <sub>3</sub> )	IS:4032-1985	1.60	3.0 % by mass <b>Max.</b>
5	Chloride (Cl)	IS:4032-1985	0.014	0.1 % by mass <b>Max.</b>
<b>PHYSICAL PARAMETERS</b>				
1	Fineness (Blaine Method)	IS:4031-(Part-2)-1999	334	300 m <sup>2</sup> /kg <b>Min.</b>
<b>Soundness</b>				
2	Le-Chatelier expansion	IS:4031-(Part-3)-1988	0.5	10 mm <b>Max.</b>
	Autoclave expansion	IS:4031-(Part-3)-1988	0.05	0.8 % <b>Max.</b>
<b>Setting time</b>				
3	Initial	IS:4031-(Part-5)-1988	140	30 minutes <b>Min.</b>
	Final	IS:4031-(Part-5)-1988	200	600 minutes <b>Max.</b>
<b>Compressive Strength at</b>				
4	72 ± 1 hr	IS:4031-(Part-6)-1988	28.5	16 MPa <b>Min.</b>
	168 ± 2 hrs	IS:4031-(Part-6)-1988	38.5	22 MPa <b>Min.</b>
	672 ± 4 hrs	IS:4031-(Part-6)-1988	54.0	33 MPa <b>Min.</b>
5	Drying Shrinkage	IS:4031-(Part-10)-1988	0.02	0.15 % <b>Max.</b>

1. The results relate only to the sample tested.
2. The certificate shall not be reproduced except in full without the written approval of laboratory.
3. The remains of the sample shall be disposed off after 2 months from the date of the certificate.

**Authorised Signatory**