JK LAKSHMI
C E M E N T Ltd.

JAYKAYPURAM—307019 Dist. Sirohi, Rajasthan

TEST CERTIFICATE FOR *JK LAKSHMI* 43 GRADE OPC

LICENCE NO . CM/L-2361143

WEEK No. 12

DATE OF ISSUE 02.04.2015

CHEMICAL / PHYSICAL REQUIREMENTS	SPECIFICATION CLAUSE No.	REQUIREMENT AS PER IS No. 8112 – 2013 AMENDMENT No. 6	RESULTS OBTAINED
CHEMICAL REQUIREMENTS : #	**5**		
(i) Ratio of Percentage of Lime to # percentage of silica, alumina and iron oxide $\frac{CaO - 0.7SO_3}{2.8\,SiO_2 + 1.2\,Al_2O_3 + 0.65\,Fe_2O_3}$	5.1	Not Greater than 1.02 And not less than 0.66	0.922
(ii) Ratio of percentage of alumina to that # of iron oxide	5.1	Not less than 0.66	1.58
(iii) Insoluble residue, percent by mass #	5.1	Not more than 4.0	2.76
(iv) Magnesia, percent by mass #	5.1	Not more than 6.0	2.42
v) Total sulphur calculated as Sulphuric Anhydride (SO_3), Percent by mass #	5.1	Not more than 3.5	2.56
(vi) Total loss on ignition #	5.1	Not more than 5%	2.22
(vii) Chloride, percent by mass #	5.1	Not more than 0.1	0.036
PHYSICAL REQUIREMENTS :	**6**		
(i) FINENESS : SP. SURFACE	6.1	Not less than 225 m2/kg	279
(ii) SOUNDNESS :	6.2		
a) Le-chatelier method Expansion		Not more than 10 mm	0.50
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b) Auto clave test expansion		Not more than 0.8%	0.036
(iii) SETTING TIME	6.3		
a) Initial Setting time in Minutes		Not less than 30	115
b) Final setting time in Minutes		Not more than 600	180
(iv) COMPRESIVE STRENGTH	6.4		
72 ± 1 Hours (3 Days)		Not less than 23 MPa	32.2
168 ± 2 Hours (7 Days)		Not less than 33 MPa	42.4
672 ± 4 Hours (28 Days)		Not less than 43 MPa * Not more than 58 MPa	Under Testing

REMARKS : The test results complies with the requirements of IS:8112 – 2013 for 43 grade OPC for all Chemical requirements and Physical requirements including Compressive Strength Up to 7- days .

Test Protocol : IS:4032 and IS:4031.

Not covered under NABL Accreditation at present

Note : Results reported above are the average test results of all samples testing during relevant week.

CERTIFIED
ISO 9001:2008
ISO 14001:2004
OHSAS 18001:2007

HOD (QC)