JK LAKSHMI         CEMENT LTD.         JAYKAYPURAM-307019 Dist. Sirohi., Rajasthan         TEST CERTIFICATE FOR JK LAKSHMI 53 - GRADE OPC			
LICENCE NO . CM/L-2361143 CT-5708			
WEEK No 28 DATE OF ISSUE 13.08.2018			
CHEMICAL / PHYSICAL REQUIREMENTS	SPECIFICATION CLAUSE No.	REQUIREMENT AS PER IS No. 269 – 2015 AMENDMENT No. 6	RESULTS OBTAINED
<ul> <li>CHEMICAL REQUIREMENTS :</li> <li>(i) Ratio of Percentage of Lime to percentage of silica, alumina and iron oxide CaO – 0.7SO<sub>3</sub></li> </ul>	<b>5</b> 5.1	Not Greater than 1.02 And not less than 0.80	0.918
2.8 SiO <sub>2</sub> + 1.2 Al <sub>2</sub> O <sub>3</sub> + 0.65 Fe <sub>2</sub> O <sub>3</sub> (ii) Ratio of percentage of alumina to that	5.1	Not less than 0.66	1.41
of iron oxide	J. 1	1101 1055 11411 0.00	1.71
(iii) Insoluble residue, percent by mass	5.1	Not more than 5.0	1.79
(iv) Magnesia, percent by mass	5.1	Not more than 6.0	2.24
<ul> <li>v) Total sulphur calculated as Sulphuric Anhydride (SO<sub>3</sub>), Percent by mass</li> </ul>	5.1	Not more than 3.5	2.98
(vi) Total loss on ignition	5.1	Not more than 5%	1.94
(vii) Chloride, percent by mass	5.1	Not more than 0.1	0.019
PHYSICAL REQUIREMENTS :	6	0/	27.75
NC (i) FINENESS : SP. SURFACE	6.1	% Not less than 225 m2/kg	359
<ul><li>(ii) SOUNDNESS :</li><li>a) Le-chatelier method Expansion</li></ul>	6.2	Not more than 10 mm	1.00
b) Auto clave test expansion		Not more than 0.8%	0.070
<ul><li>(iii) SETTING TIME</li><li>a) Initial Setting time in Minutes</li></ul>	6.3	Not less than 30	130
b) Final setting time in Minutes		Not more than 600	165
(iv) COMPRESIVE STRENGTH 72 ± 1 Hours (3 Days)	6.4	Not less than 27 MPa	42.0
168 ± 2 Hours (7 Days)		Not less than 37 MPa	49.0
672 ± 4 Hours (28 Days)		Not less than 53 MPa	59.6

**REMARKS :** The test results complies with the requirements of IS:269 – 2015 for 53 grade OPC for all Chemical Requirements and Physical requirements including Compressive Strength Up to 28- days . Test Protocol : IS:4032 and IS:4031.

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)

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