



**JK LAKSHMI**  
CEMENT LTD.  
**JAYKAYPURAM-307019 Dist. Sirohi , Rajasthan**  
**TEST CERTIFICATE FOR JK LAKSHMI 43 – GRADE OPC**



**LICENCE NO . CM/L-2361143**

CT.-5708

**WEEK No 04**

**DATE OF ISSUE 05.02.2018**

CHEMICAL / PHYSICAL REQUIREMENTS	SPECIFICATION CLAUSE No.	REQUIREMENT AS PER IS No. 269 – 2015 AMENDMENT No. 6	RESULTS OBTAINED
<b>CHEMICAL REQUIREMENTS :</b>	<b>5</b>		
(i) Ratio of Percentage of Lime to percentage of silica, alumina and iron oxide CaO – 0.7SO <sub>3</sub> ----- 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>	5.1	Not Greater than 1.02 And not less than 0.66	0.888
(ii) Ratio of percentage of alumina to that of iron oxide	5.1	Not less than 0.66	1.55
(iii) Insoluble residue, percent by mass	5.1	Not more than 5.0	2.06
(iv) Magnesia, percent by mass	5.1	Not more than 6.0	2.54
v) Total sulphur calculated as Sulphuric Anhydride (SO <sub>3</sub> ), Percent by mass	5.1	Not more than 3.5	2.63
(vi) Total loss on ignition	5.1	Not more than 5%	1.71
(vii) Chloride, percent by mass	5.1	Not more than 0.1	0.028
<b>PHYSICAL REQUIREMENTS :</b>	<b>6</b>		
<b>NC</b>		<b>%</b>	<b>27.25</b>
(i) FINENESS : SP. SURFACE	6.1	Not less than 225 m <sup>2</sup> /kg	279
(ii) SOUNDNESS : a) Le-chatelier method Expansion	6.2	Not more than 10 mm	1.00
b) Auto clave test expansion		Not more than 0.8%	0.060
(iii) SETTING TIME a) Initial Setting time in Minutes	6.3	Not less than 30	130
b) Final setting time in Minutes		Not more than 600	170
(iv) COMPRESIVE STRENGTH 72 ± 1 Hours (3 Days)	6.4	Not less than 23 MPa	32.0
168 ± 2 Hours (7 Days)		Not less than 33 MPa	41.0
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:269 – 2015 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.

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

*S. K. S.*

HOD (QC)

