



**JK LAKSHMI**  
CEMENT Ltd.

**JAYKAYPURAM—307019 Dist. Sirohi, Rajasthan**  
**TEST CERTIFICATE FOR JK LAKSHMI 53 GRADE OPC**



**LICENCE NO . CM/L-8099186**

**WEEK No 21**

**DATE OF ISSUE 04.06.2015**

| CHEMICAL / PHYSICAL REQUIREMENTS                                                                                                                                                                           | SPECIFICATION CLAUSE No. | REQUIREMENT AS PER IS No.12269 – 2013 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<br>$\text{CaO} - 0.7\text{SO}_3$<br>-----<br>$2.8 \text{SiO}_2 + 1.2 \text{Al}_2\text{O}_3 + 0.65 \text{Fe}_2\text{O}_3$ | 5.1                      | Not Greater than 1.02<br>And not less than 0.80       | 0.921            |
| (ii) Ratio of percentage of alumina to that # of iron oxide                                                                                                                                                | 5.1                      | Not less than 0.66                                    | 1.56             |
| (iii) Insoluble residue, percent by mass #                                                                                                                                                                 | 5.1                      | Not more than 4.0                                     | 2.79             |
| (iv) Magnesia, percent by mass #                                                                                                                                                                           | 5.1                      | Not more than 6.0                                     | 2.42             |
| (v) Total sulphur calculated as Sulphuric # Anhydride ( $\text{SO}_3$ ), Percent by mass                                                                                                                   | 5.1                      | Not more than 3.5                                     | 2.82             |
| (vi) Total loss on ignition #                                                                                                                                                                              | 5.1                      | Not more than 4%                                      | 2.26             |
| (vii) Chloride, percent by mass #                                                                                                                                                                          | 5.1                      | Not more than 0.1                                     | 0.029            |
| <b>PHYSICAL REQUIREMENTS :</b>                                                                                                                                                                             | <b>6</b>                 |                                                       |                  |
| (i) FINENESS :<br>SP. SURFACE                                                                                                                                                                              | 6.1                      | Not less than 225 m <sup>2</sup> /kg                  | 342              |
| (ii) SOUNDNESS :<br>a) Le-chatelier method<br>Expansion                                                                                                                                                    | 6.2                      | Not more than 10 mm                                   | 0.58             |
| b) Auto clamp test expansion C.NO.T-0720                                                                                                                                                                   |                          | Not more than 0.8%                                    | 0.057            |
| (iii) SETTING TIME<br>a) Initial Setting time in Minutes                                                                                                                                                   | 6.3                      | Not less than 30                                      | 118              |
| b) Final setting time in Minutes                                                                                                                                                                           |                          | Not more than 600                                     | 167              |
| (iv) COMPRESIVE STRENGTH<br>72 ± 1 Hours (3 Days)                                                                                                                                                          | 6.4                      | Not less than 27 MPa                                  | 40.5             |
| 168 ± 2 Hours (7 Days)                                                                                                                                                                                     |                          | Not less than 37 MPa                                  | 48.0             |
| 672 ± 4 Hours (28 Days)                                                                                                                                                                                    |                          | Not less than 53 MPa                                  | Under Testing    |



**REMARKS : The test results complies with the requirements of IS: 12269– 2013for 53 grade OPC for All Chemical requirements and Physical requirements including Compressive Strength up to 7- day. 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

*S. K. S. S.*

HOD(QC)