## JK LAKSHMI



## CEMENT LTD.





## LICENCE NO. CM/L-2361143

CT-5708

| WEEK No 02 DATE OF ISSUE 22.01.2018  |                             |  |                     |
|--|-----------------------------|--|---------------------|
| CHEMICAL / PHYSICAL<br>REQUIREMENTS  | SPECIFICATION<br>CLAUSE No. | REQUIREMENT AS PER<br>IS No. 269 – 2015<br>AMENDMENT No. 6 | RESULTS<br>OBTAINED |
| CHEMICAL REQUIREMENTS:  (i) Ratio of Percentage of Lime to percentage of silica, alumina and iron oxide CaO – 0.7SO <sub>3</sub> | <b>5</b><br>5.1             | Not Greater than 1.02<br>And not less than 0.80            | 0.896               |
| $2.8 \text{ SiO}_2 + 1.2 \text{ Al}_2\text{O}_3 + 0.65 \text{ Fe}_2\text{O}_3$   |                             |  |                     |
| (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 5.0  | 2.00                |
| (iv) Magnesia, percent by mass   | 5.1                         | Not more than 6.0  | 2.50                |
| v) Total sulphur calculated as Sulphuric Anhydride (SO <sub>3</sub> ), Percent by mass   | 5.1                         | Not more than 3.5  | 3.10                |
| (vi) Total loss on ignition  | 5.1                         | Not more than 5%   | 1.65                |
| (vii) Chloride, percent by mass  | 5.1                         | Not more than 0.1  | 0.030               |
| PHYSICAL REQUIREMENTS:   | 6                           |  |                     |
| (i) FINENESS :<br>SP. SURFACE  | 6.1                         | Not less than 225 m2/kg                                    | 358                 |
| (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%   | 0.070               |
| (iii) SETTING TIME a) Initial Setting time in Minutes  | 6.3                         | Not less than 30   | 115                 |
| b) Final setting time in Minutes   |                             | Not more than 600  | 150                 |
| (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                                       | 50.0                |
| 672 ± 4 Hours (28 Days)  |                             | Not less than 53 MPa                                       | Under Testing       |

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 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

HOD (QC)

