



NABL

Accredited Laboratory

Certificate No. : TC - 8013

**JK LAKSHMI**  
C E M E N T



DASTAN, PALSANA, DIST. SURAT (GUJ.)

LICENCE NO. CM/L-7200051996

## TEST CERTIFICATE

Customer Name & Address :

Certificate (ULR) No. : TC801319000000101P

Sample Identification : Ordinary Portland Cement – 53 Grade (As per IS 269 : 2015)

Sample Date : 09.04.2019 to 15.04.2019 (Week No : 15)

Date of Issue: 24.04.2019

| Sr. No                         | Particulars   | Test Method                  | Requirement of IS:269                                    | Results Obtained                                   |
|--------------------------------|---|------------------------------|--|--|
| <b>Chemical Requirements</b>   |   |                              |  |  |
| 1                              | Ratio of Percentage of Lime to percentage of silica, alumina and iron oxide<br>$CaO - 0.7SO_3$<br>-----<br>$2.8 SiO_2 + 1.2 Al_2O_3 + 0.65 Fe_2O_3$ | IS : 4032 - 1985             | Not greater than 1.02<br>And not less than 0.80          | <b>0.892</b>                                       |
| 2                              | Ratio of percentage of alumina to that of iron oxide  | IS : 4032 - 1985             | Not less than 0.66                                       | <b>1.57</b>  |
| 3                              | Insoluble residue(% by mass)  | IS : 4032 - 1985             | Not more than 5.0  | <b>1.92</b>  |
| 4                              | Magnesia(% by mass)   | IS : 4032 - 1985             | Not more than 6.0  | <b>2.54</b>  |
| 5                              | Total sulphur calculated as Sulphuric Anhydride (SO <sub>3</sub> ) (% by mass)  | IS : 4032 - 1985             | Not more than 3.5  | <b>2.86</b>  |
| 6                              | Total loss on ignition (% by mass)  | IS : 4032 - 1985             | Not more than 4.0  | <b>1.58</b>  |
| 7                              | Chloride(% by mass)*  | IS : 4032 - 1985             | Not more than 0.1  | <b>0.019</b>                                       |
| <b>Mechanical Requirements</b> |   |                              |  |  |
| 1                              | Fineness (m <sup>2</sup> /kg)   | IS : 4031<br>(Part-2) - 1999 | Not less than 225  | <b>326</b>   |
| 2                              | Normal Consistency (%)  | IS : 4031<br>(Part-4) - 1988 | -  | <b>28.75</b>                                       |
| 3                              | Soundness :<br>a) Le-chateliere expansion (mm)<br>b) Autoclave test expansion (%)   | IS : 4031<br>(Part-3) - 1988 | Not more than 10<br>Not more than 0.8                    | <b>1.0</b><br><b>0.100</b>                         |
| 4                              | Setting Time :<br>a) Initial setting time (Minutes)<br>b) Final setting time (Minutes)  | IS : 4031<br>(Part-5) - 1988 | Not less than 30<br>Not more than 600                    | <b>125</b><br><b>170</b>                           |
| 5                              | Compressive Strength :<br>a) 72 ± 1 Hours (3 Days) (MPa)<br>b) 168 ± 2 Hours (7 Days) (MPa)<br>c) 672 ± 4 Hours (28 Days) (MPa)                     | IS : 4031<br>(Part-6) - 1988 | Not less than 27<br>Not less than 37<br>Not less than 53 | <b>40.0</b><br><b>48.4</b><br><b>Under Testing</b> |

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

\*: Not covered under NABL Accreditation at present.

Technical Manager

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Authorized Signatory

