JK LAKSHMI CEMENT

MAZBOOTI GUARANTEED

TEST CERTIFICATE

NABL
Accredited Laboratory
Certificate No. : TC - 8013

Customer Name & Address : Marketing Department of JK Lakshmi Cement Ltd., Surat

Certificate (ULR) No. : TC801318000000133P

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

Sample Date : 08.01.2019 to 14.01.2019 (Week No : 02)

Date of Issue: 23.01.2019

Sr. No	Particulars	Test Method	Requirement of IS:269	Results Obtained
	Chemical Requirements			
1	Ratio of Percentage of Lime to percentage of silica, alumina and iron oxide $$\frac{CaO - 0.7SO_3}{2.8\ SiO_2 + 1.2\ Al_2O_3 + 0.65\ Fe_2O_3}$$	IS : 4032 - 1985	Not greater than 1.02 And not less than 0.80	**0.886**
2	Ratio of percentage of alumina to that of iron oxide	IS : 4032 - 1985	Not less than 0.66	**1.57**
3	Insoluble residue(% by mass)	IS : 4032 - 1985	Not more than 5.0	**1.82**
4	Magnesia(% by mass)	IS : 4032 - 1985	Not more than 6.0	**2.43**
5	Total sulphur calculated as Sulphuric Anhydride (SO_3) (% by mass)	IS : 4032 - 1985	Not more than 3.5	**2.98**
6	Total loss on ignition (% by mass)	IS : 4032 - 1985	Not more than 4.0	**1.56**
7	Chloride(% by mass)*	IS : 4032 - 1985	Not more than 0.1	**0.018**
	Mechanical Requirements			
1	Fineness (m^2/kg)	IS : 4031 (Part-2) - 1999	Not less than 225	**334**
2	Normal Consistency (%)	IS : 4031 (Part-4) - 1988	-	**28.75**
3	Soundness : a) Le-chateliere expansion (mm) b) Autoclave test expansion (%)	IS : 4031 (Part-3) - 1988	Not more than 10 Not more than 0.8	**1.0** **0.104**
4	Setting Time : a) Initial setting time (Minutes) b) Final setting time (Minutes)	IS : 4031 (Part-5) - 1988	Not less than 30 Not more than 600	**130** **170**
5	Compressive Strength : a) 72 ± 1 Hours (3 Days) (MPa) b) 168 ± 2 Hours (7 Days) (MPa) c) 672 ± 4 Hours (28 Days) (MPa)	IS : 4031 (Part-6) - 1988	Not less than 27 Not less than 37 Not less than 53	**37.8** **47.0** **Under Testing**

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 **Page 1 of 1** **Authorized Signatory**

ISO 9001:2015 ISO 14001 OHSAS 18001 ISO 50001:2011