



## JSW OPC Cement : 53 GRADE

**THE LEADERS' CHOICE**

### TEST CERTIFICATE

Ordinary Portland Cement as per IS 269:2015

REF.: JSW/QA/2023/A-01

DATE : 20-08-2023

WEEK NO. : 29

16-07-2023 22-07-2023

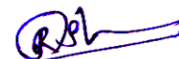
CHARACTERISTIC	RESULTS OBTAINED	REQUIREMENT OF IS 269:2015
<b>(A) CHEMICAL COMPOSITION</b>		
(i) Lime Saturation Factor	0.91	0.80 to 1.02
(ii) Alumina Modulus, Ratio	1.59	0.66 Minimum
(iii) Insoluble residue (IR) % by mass	0.40	5.0 Maximum
(iv) Magnesia (MgO) % by mass	2.46	6.0 Maximum
(v) Sulphuric Anhydride % by mass	2.43	3.5 Maximum
(vi) Loss on ignition (LOI), % by mass	2.08	4.0 Maximum
(vii) Chloride, % by mass	0.014	0.10 Maximum
<b>(B) PHYSICAL TESTING</b>		
<b>1. Fineness of Cement</b>		
Sp.Surface (m <sup>2</sup> /kg)	320	225 minimum
<b>2. Soundness</b>		
Le-Chatelier Expansion (mm)	1.00	10 Maximum
Autoclave Expansion (%)	0.050	0.8 Maximum
<b>3. Setting Time</b>		
Initial (in Minutes)	175	30 Minimum
Final (in Minutes)	215	600 Maximum
<b>4. Compressive Strength (MPa)</b>		
(a) At 72 ± 1 Hr.	39.75	27 MPa Minimum
(b) At 168 ± 2 Hrs.	46.71	37 MPa Minimum
(c) At 672 ± 4 Hrs.	56.74	53 MPa Minimum
<b>5. Normal Consistency</b>	28.50	--
<b>6. Performance Improver (Slag) %</b>	4.00	5 % MAX

**Remarks :**

- Temperature during testing - 27 ± 2° c.
- Ordinary Portland Cement conforms to the requirements of IS 269:2015 in all respects.
- Specific Gravity :- 3.14

**Address:**

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HOD-Quality Control