



# **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: 08-10-2023

WEEK NO.: 36 03-09-2023 09-09-2023

CHARACTERISTIC	RESULTS OBTAINED	REQUIREMENT OF IS 269:2015
(A) CHEMICAL COMPOSITION		
(i) Lime Saturation Factor	0.91	0.80 to 1.02
(ii) Alumina Modulus, Ratio	1.52	0.66 Minimum
(iii) Insoluble residue (IR) % by mass	0.41	5.0 Maximum
(iv) Magnesia (MgO) % by mass	2.50	6.0 Maximum
(v) Sulphuric Anhydride % by mass	2.12	3.5 Maximum
(vi) Loss on ignition (LOI), % by mass	2.30	4.0 Maximum
(vii) Chloride , % by mass	0.015	0.10 Maximum
(B) PHYSICAL TESTING		
1. Fineness of Cement		
Sp.Surface (m²/kg)	320	225 minimum
2. Soundness		
Le-Chatelier Expansion (mm)	1.00	10 Maximum
Autoclave Expansion (%)	0.051	0.8 Maximum
3. Setting Time		
Initial (in Minutes)	180	30 Minimum
Final (in Minutes)	225	600 Maximum
4. Compressive Strength (MPa)		
(a) At 72 ± 1 Hr.	37.03	27 MPa Minimum
(b) At 168 ± 2 Hrs.	45.62	37 MPa Minimum
(c) At 672 ± 4 Hrs.	56.27	53 MPa Minimum
5. Normal Consistency	28.75	
6. Performance Improver (Slag) %	4.00	5 % MAX

## Remarks :

- 1. Temperature during testing  $27 \pm 2^{\circ}$  c.
- 2. Ordinary Portland Cement conforms to the requirements of IS 269:2015 in all respects.
- 3. Specific Gravity:- 3.16

#### Address:

JSW CEMENT LIMITED

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Prepared By Officer-QC

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