



CONCREEL HD

THE LEADERS' CHOICE

TEST CERTIFICATE

Portland Slag Cement as per IS 455:2015

REF.: JSW/QA/2023/A-01 DATE: 15-10-2023

WEEK NO. : 37 10-09-2023 to 16-09-2023

CHARACTERISTIC	RESULTS OBTAINED	REQUIREMENT OF IS 455:2015
(A) CHEMICAL COMPOSITION		
(i) Magnesia (MgO), % by mass	4.73	10.0 Maximum
(ii) Insoluble Residue, % by mass	0.38	4.0 Maximum
(iii) Sulphuric Anhydride (SO ₃) % by mass	2.34	3.5 Maximum
(iv) Sulphide Sulphur (S)	0.23	1.5 Maximum
(v) Loss on Ignition % by mass	1.15	5.0 Maximum
(vi) Total Chloride (Cl), % by mass	0.013	0.10 Maximum
(B) PHYSICAL TESTING		
1. Fineness of Cement		
Sp.Surface (m ² /kg)	352	225 m ² /kg minimum
2. Soundness		
Le-Chatelier Expansion (mm)	1.00	10 mm Maximum
Autoclave Expansion (%)	0.053	0.8 % Maximum
3. Setting Time		
Initial (in Minutes)	190	Not less than 30 minutes
Final (in Minutes)	240	Not more than 600 minutes
4. Compressive Strength (MPa)		
(a) At 72 ± 1 Hr.	29.09	16 MPa Minimum
(b) At 168 ± 2 Hrs.	38.99	22 MPa Minimum
(c) At 672 ± 4 Hrs.	52.68	33 MPa Minimum
5. Normal Consistency	31.00	
6. GGBS Addition (%)	45.00	25% MIN & 70% MAX

Remarks:

- 1. Temperature during testing $27 \pm 2^{\circ}$ c.
- 2. Portland Slag Cement conforms to the requirement of IS 455:2015 in all respects.
- 3. Specific Gravity :- 3.05

Address:

JSW CEMENT LIMITED

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Prepared By

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