



## CONCREEL HD

THE LEADERS' CHOICE

### TEST CERTIFICATE

Portland Slag Cement as per IS 455:2015

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

DATE : 17-09-2023

WEEK NO. : 33

13-08-2023 to 19-08-2023

CHARACTERISTIC	RESULTS OBTAINED	REQUIREMENT OF IS 455:2015
<b>(A) CHEMICAL COMPOSITION</b>		
(i) Magnesia (MgO), % by mass	4.76	10.0 Maximum
(ii) Insoluble Residue, % by mass	0.46	4.0 Maximum
(iii) Sulphuric Anhydride (SO <sub>3</sub> ) % by mass	2.19	3.5 Maximum
(iv) Sulphide Sulphur (S)	0.22	1.5 Maximum
(v) Loss on Ignition % by mass	1.12	5.0 Maximum
(vi) Total Chloride (Cl), % 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)	351	225 m <sup>2</sup> /kg minimum
<b>2. Soundness</b>		
Le-Chatelier Expansion (mm)	1.00	10 mm Maximum
Autoclave Expansion (%)	0.049	0.8 % Maximum
<b>3. Setting Time</b>		
Initial (in Minutes)	200	Not less than 30 minutes
Final (in Minutes)	245	Not more than 600 minutes
<b>4. Compressive Strength (MPa)</b>		
(a) At 72 ± 1 Hr.	29.55	16 MPa Minimum
(b) At 168 ± 2 Hrs.	39.16	22 MPa Minimum
(c) At 672 ± 4 Hrs.	52.24	33 MPa Minimum
<b>5. Normal Consistency</b>	31.00	--
<b>6. GGBS Addition (%)</b>	45.00	25% MIN & 70% MAX

**Remarks :**

1. Temperature during testing - 27 ± 2° c.
2. Portland Slag Cement conforms to the requirement of IS 455:2015 in all respects.
3. Specific Gravity :- 3.05

**Address:**

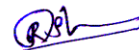
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