



CONCREEL HD

THE LEADERS' CHOICE

TEST CERTIFICATE

Portland Slag Cement as per IS 455:2015

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

DATE : 10-09-2023

WEEK NO. : 32

06-08-2023 to 12-08-2023

| 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 | 0.47 | 4.0 Maximum |
| (iii) Sulphuric Anhydride (SO ₃) % by mass | 2.12 | 3.5 Maximum |
| (iv) Sulphide Sulphur (S) | 0.22 | 1.5 Maximum |
| (v) Loss on Ignition % by mass | 1.22 | 5.0 Maximum |
| (vi) Total Chloride (Cl), % by mass | 0.014 | 0.10 Maximum |
| (B) PHYSICAL TESTING | | |
| 1. Fineness of Cement | | |
| Sp.Surface (m ² /kg) | 351 | 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. | 29.75 | 16 MPa Minimum |
| (b) At 168 ± 2 Hrs. | 39.05 | 22 MPa Minimum |
| (c) At 672 ± 4 Hrs. | 52.13 | 33 MPa Minimum |
| 5. Normal Consistency | 31.00 | -- |
| 6. GGBS Addition (%) | 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:

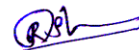
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