

JSW Cement Limited

TEST REPORT

Portland Slag Cement as per IS 455:1989

REF.: JSW/QA/2014 21

DATE : 04-06-2015

WEEK NO. : 21

21-05-2015 to 27-05-2015

| CHARACTERISTIC | RESULTS OBTAINED | REQUIREMENT OF IS455:1989 |
|--|------------------|--------------------------------|
| (A) CHEMICAL COMPOSITION | | |
| (i) Magnesia (MgO), % by mass | 4.10 | 10.0 Maximum |
| (ii) Insoluble Residue, % by mass | 0.42 | 4.0 Maximum |
| (iii) Sulphuric Anhydride (SO ₃) % by mass | 2.46 | 3.0 Maximum |
| (iv) Sulphide Sulphur (S) | 0.23 | 1.5 Maximum |
| (v) Loss on Ignition % by mass | 1.18 | 5.0 Maximum |
| (vi) Total Chloride (Cl), % by mass | 0.015 | 0.10 Maximum |
| (B) PHYSICAL TESTING | | |
| 1. Fineness of Cement | | |
| Sp.Surface blaine (m ² /kg) | 321 | 225 m ² /kg minimum |
| 2. Soundness | | |
| Le-Chatelier Expansion (mm) | 0.54 | 10 mm Maximum |
| Autoclave Expansion (%) | 0.05 | 0.8 % Maximum |
| 3. Setting Time | | |
| Initial (in Minutes) | 190 | Not less than 30 minutes |
| Final (in Minutes) | 234 | Not more than 600 minutes |
| 4. Compressive Strength (MPa) | | |
| (a) At 72 ± 1 Hrs. | 25.33 | 16 MPa Minimum |
| (b) At 168 ± 2 Hrs. | 36.81 | 22 MPa Minimum |
| (c) At 672 ± 4 Hrs. | Result Awaited | 33 MPa Minimum |

Remarks :

- Temperature during testing - 27 ± 2° c.
- Portland Slag Cement conforms to the requirement of IS 455-1989 in all respects.



Sr.General Manager