

HEIDELBERGCEMENT**mycem**

for better building

DIAMOND CEMENTS,(Prop. HEIDELBERGCEMENT INDIA LTD)**MADORA,JHANSI UNIT****TEST REPORT FOR MYCEM**

Portland Pozzolana Cement as per IS1489 (Part I):2015

HCIL(JHS)-QCD-F-028

REF.: DC/JHN/QA/2019/08

DATE-2/04/2019

WEEK NO. : 08

(19.02.19-25.02.19)

| CHARACTERISTIC | RESULTS OBTAINED | REQUIREMENT OF IS1489 (Part 1):2015 |
|--|------------------|---|
| (A) CHEMICAL COMPOSITION | | |
| (i) Loss on Ignition % by mass | 2.27 | 5.0, Max. |
| (ii) Magnesia (MgO), % by mass | 2.62 | 6.0, Max. |
| (iii) Sulphuric Anhydride (SO ₃) % by mass | 2.06 | 3.5, Max. |
| (iv) Total Chloride (Cl), % by mass | 0.010 | 0.1, Max. |
| (v) Insoluble Material, % by mass | 33.36 | $X + \{4.0(100-X)/100\}$ Max. and 0.6X Min. (Where X is the declared % of Fly Ash in the PPC sample) |
| (B) PHYSICAL TESTING | | |
| 1. Fineness of Cement | | |
| Sp.Surface blaine (m ² /kg) | 354 | 300 m ² /kg minimum |
| 2. Soundness | | |
| Le-Chatelier Expansion (mm) | 1.000 | 10 mm, Max. |
| Autoclave Expansion (%) | 0.093 | 0.8 %, Max. |
| 3. Setting Time | | |
| Initial (in Minutes) | 175 | 30 minutes, Min. |
| Final (in Minutes) | 220 | 600 minutes, Max. |
| 4. Compressive Strength (MPa) | | |
| (a) At 72 ± 1 Hrs. | 23 | 16 MPa, Min. |
| (b) At 168 ± 2 Hrs. | 33 | 22 MPa, Min. |
| (c) At 672 ± 4 Hrs. | 47 | 33 MPa, Min. |
| 5. Drying Shrinkage (%) | 0.035 | 0.15 %, Max. |
| 6. Declared % of Fly Ash in PPC | 34.00 | 15 - 35 % |

Remarks :

- Temperature during testing - $27 \pm 2^\circ \text{c}$.
- The amount of Fly Ash in the finished cement is not varying more than $\pm 3\%$ from the declared value.
- Portland Pozzolana Cement conforms to the requirement of IS 1489 (Part 1):2015 in all respects.



Head of Quality Control - Jhansi