

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):1991

REF.: DC/JHN/QA/2016/37

DATE-23.10.16

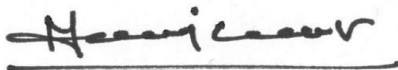
WEEK NO. : 37

(09.09.16-15.09.16)

| CHARACTERISTIC | RESULTS OBTAINED | REQUIREMENT OF IS1489 (Part 1):1991 |
|--|------------------|--|
| (A) CHEMICAL COMPOSITION | | |
| (i) Loss on Ignition % by mass | 2.14 | 5.0, Max. |
| (ii) Magnesia (MgO), % by mass | 2.54 | 6.0, Max. |
| (iii) Sulphuric Anhydride (SO ₃) % by mass | 2.07 | 3.0, Max. |
| (iv) Total Chloride (Cl), % by mass | 0.010 | 0.1, Max. |
| (v) Insoluble Material, % by mass | 33.37 | $X + 4.0 \times (100 - X) / 100$ 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) | 352 | 300 m ² /kg minimum |
| 2. Soundness | | |
| Le-Chatelier Expansion (mm) | 0.50 | 10 mm, Max. |
| Autoclave Expansion (%) | 0.091 | 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. | 22 | 16 MPa, Min. |
| (b) At 168 ± 2 Hrs. | 32 | 22 MPa, Min. |
| (c) At 672 ± 4 Hrs. | 45 | 33 MPa, Min. |
| 5. Drying Shrinkage (%) | 0.036 | 0.15 %, Max. |
| 6. Declared % of Fly Ash in PPC | 34.95 | 15 - 35 % |

Remarks :

1. Temperature during testing - $27 \pm 2^{\circ}$ c.
2. The amount of Fly Ash in the finished cement is not varying more than $\pm 3\%$ from the declared value.
3. Portland Pozzolana Cement conforms to the requirement of IS 1489 (Part 1):1991 in all respects.



Head of Quality Control - Jhansi