

## HEIDELBERGCEMENT INDIA LTD, AMMASANDRA TEST REPORT FOR MYCEM

REF.: HCIL/QA/2018/19

DATE : 12.06.2018

HCIL(AMS)-QCD-F026

WEEK NO. : 19

5/7/2018 to 5/13/2018

| CHARACTERISTIC   | RESULTS OBTAINED | REQUIREMENT OF IS455:2015      |
|--|------------------|--------------------------------|
| <b>(A) CHEMICAL COMPOSITION</b>                        |                  |                                |
| (i) Magnesia (MgO), % by mass                          | 4.85             | 10.0 Maximum                   |
| (ii) Insoluble Residue, % by mass                      | 1.40             | 4.0 Maximum                    |
| (iii) Sulphuric Anhydride (SO <sub>3</sub> ) % by mass | 2.55             | 3.5 Maximum                    |
| (iv) Sulphide Sulphur (S)                              | 0.30             | 1.5 Maximum                    |
| (v) Loss on Ignition % by mass                         | 1.66             | 5.0 Maximum                    |
| (vi) Total Chloride (Cl), % by mass                    | 0.0443           | 0.10 Maximum                   |
| <b>(B) PHYSICAL TESTING</b>                            |                  |                                |
| <b>1. Fineness of Cement</b>                           |                  |                                |
| Sp.Surface blaine (m <sup>2</sup> /Kg)                 | 352              | 225 m <sup>2</sup> /kg minimum |
| <b>2. Soundness</b>                                    |                  |                                |
| Le-Chatelier Expansion (mm)                            | 1.0              | 10 mm Maximum                  |
| Autoclave Expansion (%)                                | 0.10             | 0.8 % Maximum                  |
| <b>3. Setting Time</b>                                 |                  |                                |
| Initial (in Minutes)                                   | 105              | Not less than 30 minutes       |
| Final (in Minutes)                                     | 210              | Not more than 600 minutes      |
| <b>4. Compressive Strength (MPa)</b>                   |                  |                                |
| (a) At 72 ± 1 Hrs.                                     | 23.2             | 16 MPa Minimum                 |
| (b) At 168 ± 2 Hrs.                                    | 33.9             | 22 MPa Minimum                 |
| (c) At 672 ± 4 Hrs.                                    | 54.2             | 33 MPa Minimum                 |

**Remarks :**

1. Physical Lab Temperature during testing - 27 ± 2° C
2. Portland Slag Cement conforms to the requirement of **IS 455:2015** in all respects.



**Mgr (QC)**