



## CONCREEL HD

**START STRONG.GROW STRONGER.**

### TEST CERTIFICATE

Portland Slag Cement as per IS 455:2015

REF.: JSW/QA/2020 29

DATE : 19-08-2020

WEEK NO. : 29

15-07-2020 21-07-2020


| CHARACTERISTIC   | RESULTS OBTAINED | REQUIREMENT OF IS 455:2015     |
|--|------------------|--------------------------------|
| <b>(A) CHEMICAL COMPOSITION</b>                        |                  |                                |
| (i) Magnesia (MgO), % by mass                          | 4.79             | 10.0 Maximum                   |
| (ii) Insoluble Residue, % by mass                      | 0.36             | 4.0 Maximum                    |
| (iii) Sulphuric Anhydride (SO <sub>3</sub> ) % by mass | 2.57             | 3.5 Maximum                    |
| (iv) Sulphide Sulphur (S)                              | 0.28             | 1.5 Maximum                    |
| (v) Loss on Ignition % by mass                         | 1.90             | 5.0 Maximum                    |
| (vi) Total Chloride (Cl), % by mass                    | 0.018            | 0.10 Maximum                   |
| <b>(B) PHYSICAL TESTING</b>                            |                  |                                |
| <b>1. Fineness of Cement</b>                           |                  |                                |
| Sp.Surface blaine (m <sup>2</sup> /kg)                 | 362              | 225 m <sup>2</sup> /kg minimum |
| <b>2. Soundness</b>                                    |                  |                                |
| Le-Chatelier Expansion (mm)                            | 1.00             | 10 mm Maximum                  |
| Autoclave Expansion (%)                                | 0.059            | 0.8 % Maximum                  |
| <b>3. Setting Time</b>                                 |                  |                                |
| Initial (in Minutes)                                   | 170              | Not less than 30 minutes       |
| Final (in Minutes)                                     | 215              | Not more than 600 minutes      |
| <b>4. Compressive Strength (MPa)</b>                   |                  |                                |
| (a) At 72 ± 1 Hrs.                                     | 35.05            | 16 MPa Minimum                 |
| (b) At 168 ± 2 Hrs.                                    | 44.77            | 22 MPa Minimum                 |
| (c) At 672 ± 4 Hrs.                                    | 55.68            | 33 MPa Minimum                 |

**Remarks :**

- Temperature during testing - 27 ± 2° c.
- Portland Slag Cement conforms to the requirement of IS 455-2015 in all respects.

**Address:**

JSW CEMENT LIMITED  
 Village- Khar Karavi, Post Office- Gadab  
 Taluka- Pen, District- Raigad  
 402107, Maharashtra. +91 2143 277601/2



Associated General Manager