





WORK TEST CERTIFICATE

Portland Pozzolana Cement

| Despatched during Week No. | | 24 | From | 10-Jun-2020 | | То | 16-Jun-2020 |
|----------------------------|--|-----------------|---------------------|--|--|-------------------------|----------------|
| Test Certificate No. | | 24 Reference | | o No | | WCV | V/IMS/QA/FM/09 |
| Dated | | 15-Jul-2020 | Referenc | s NO. | | VVC VV/IIVIS/QA/FIVI/09 | |
| S.N. | Parameters | | Results Obtained | Requirement as per IS 1489 (Part I) : 2015 | | | |
| 1 | Chemical Composition | | | | | | |
| | Loss on Ignition (% by mass) | | | 1.80 | Not More than 5.0 % | | |
| | Magnesia (% by mass) | | | 0.75 | Not more than 6.0 % | | |
| | Sulphuric Anhydride SO3 (% by mass) | | | 2.20 | Not More than 3.5 % | | |
| | Chloride Content (% by mass) | | | 0.01 | Not more than 0.1 % for general purpose & not more than 0.05 % for pre-stressed structures | | |
| | Insoluble Residue (% by mass) | | | 28.30 | Not More than [X + 4.0 (100-X) / 100] & Not less than (0.6 X), Where "X" is the declared Pozzolana content in cement | | |
| Physical Analysis | | | | | | | |
| 2 | Fineness | | | | | | |
| | Blaine's Specific Surface Area (m2 / kg) | | | 323 | Not Less than 300 | | |
| 3 | Compressive Strength (MPa) | | | | | | |
| | 72 ± 1h (3 Days) | | | 28.4 | Not less than 16.0 | | |
| | 168 ± 2h (7 Days) | | | 38.7 | Not less than 22.0 | | |
| | 672 ± 4h (28 Days) * | | | 57.0 | Not less than 33.0 | | |
| 4 | Setting Time (Minutes) | | | | | | |
| | Initial | | | 175 | Not less than 30 | | |
| | Final | | | 265 | Not more than 600 | | |
| 5 | Soundness | | | | | | |
| | Le-Chatelier Expansion (mm) | | | 1.00 | Not more than 10.0 | | |
| | Auto-Clave Expansion (%) | | | 0.040 | Not more than 0.8 | | |
| 6 | Drying Shrinkage (%)* | | | Awaited | Not more than 0.15 | | |
| 7 | Normal Consistency (%) | | | 29.00 | | | |
| | Temp. During Testing (0C) | | | 27.00 | (27 ± 2)0C | | |

* Fly Ash Content in Cement is (%) 34.00

The above cement complies with the requirements of IS 1489 (Part I): 2015 for Portland Pozzolana Cement.

Manager (QA)