



WORK TEST CERTIFICATE

Portland Pozzolana Cement

| Despatch | ned during Week No. | 20 | From | 14-May | y-2022 | То | 20-May-2022 |
|-----------|-------------------------------------|-------------------|-----------------------------|---------------------|--|--------------------------------------|----------------|
| Test Cert | tificate No. | 20 | Referenc | e No | | WCV | V/IMS/QA/FM/18 |
| Dated | | 25-Jun-2022 | | | | | |
| S.N. | Pa | rameters | | Results Obtained | Requirem | ement as per IS 1489 (Part I) : 2015 | |
| | Chemical Composition | on | | 1 | | | |
| | Loss on Ignition (% by | mass) | | 2.21 | Not More than 5.0 % | | |
| | Magnesia (% by mass |) | | 0.89 | Not more than 6.0 % | | |
| 1 | Sulphuric Anhydride SO3 (% by mass) | | | 2.15 | 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) | | | 24.76 | 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 | | | 1 | | | |
| | Fineness | | | | | | |
| 2 | Blaine's Specific Surfa | ce Area (m2 / kg) | | 338 | Not More than 5.0 % Not more than 0.1 % for general purpose & more than 0.05 % for pre-stressed structures Not More than [X + 4.0 (100-X) / 100] & Not less than (0.6 X), Where "X" is the declar Pozzolana content in cement Not less than 22.0 Not less than 33.0 Not less than 30 Not more than 600 Not more than 10.0 Not more than 0.8 Not more than 0.8 Not more than 0.15 | | |
| 2 3 | Compressive Strengt | th (MPa) | | | | | |
| | 72 ± 1h (3 Days) | | | 27.7 | Not less than 16.0 | | |
| 3 | 168 ± 2h (7 Days) | | | 38.0 | Not less than 22.0 | | |
| | 672 ± 4h (28 Days) * | | | 54.1 | Not less th | an 33.0 | |
| | Setting Time (Minutes | s) | | | | | |
| 3 | Initial | | | 170 | Not less th | an 30 | |
| | Final | | | 245 | Not more than 600 | | |
| | Soundness | | | | | | |
| 5 | Le-Chatelier Expansion (mm) | | | 1.00 | Not more than 10.0 | | |
| | Auto-Clave Expansion | (%) | Reference No. Requirement | than 0.8 | | | |
| 6 | Drying Shrinkage (%)* | | | 0.04 | Not more t | than 0.15 | |
| 3 4 5 | Normal Consistency (%) | | | 30.50 | | | |
| | Temp. During Testing (0C) | | | 27.00 | (27 ± 2)0C | | |

| * Fly Ash Content in Cement is (%) 34.0 | .00 |
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The above cement complies with the requirements of IS 1489 (Part I): 2015 for Portland Pozzolana Cement.



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