

WORK TEST CERTIFICATE



Portland Pozzolana Cement

| | atched during Week No. | 06 | | From | 05/02/2018 | To 11/02/2018 | | |
|-----------------|--|----------------|-----|---|--|---------------|--|--|
| Test C Dated | Certificate No. | 06 20/02/20 | 18 | Refere | ence No. | WD/LAB/TC/09 | | |
| S.N. | Parameters | | | | • | - | | |
| | Chemical Composition | | | | | | | |
| | Loss on Ignition (% by mass) | | 1.6 | | Not More than 5.0% | | | |
| | Magnesia (MgO) (% by mass) | | 0.9 | | Not More than 6.0% | | | |
| | Sulphuric Anhydride (SO ₃): (Mass) | % by | 2 | 2.6 | Not More than 3.5 | % | | |
| 1 | Chloride Content (% by Mass) | | 0. | 023 | Not More than 0.1% (for general purpose) & not more than 0.05% for pre-stressed structures | | | |
| | Insoluble Residue (% by ma | ss) | 2 | Reference No. Results Is 1489 (Part I) 1.6 Not More than 5.0% 0.9 Not More than 6.0% 2.6 Not More than 0.1% (for genot more than 0.05% for prestructures Not More than [X + 4.0 (100) Not less than (0.6 X), Where | X), Where "X" is the | | | |
| | Physical Analysis | | | | | | | |
| 2 | Fineness | | | | Reference No. Requirement as per IS 1489 (Part I):2015 Not More than 5.0% Not More than 6.0% Not More than 0.1% (for general punot more than 0.05% for pre-stresses structures Not More than [X + 4.0 (100-X) / 10 Not less than (0.6 X), Where "X" is declared Pozzolana content in cem Not Less than 300 Not less than 16.0 Not less than 33.0 Not less than 30 Not more than 600 Not more than 10.0 Not more than 0.8 ed Not More than 0.15 | | | |
| | Blaine's Specific Surface Are | ea (m²/kg) | 3 | 347 | Not Less than 300 | | | |
| | Compressive Strength (MF | Pa) | | | | | | |
| 3 | 72 ± 1h (3 Days) | | 2 | 9.0 | Not less than 16.0 | | | |
| | 168 ± 2h (7 Days) | | 3 | 8.7 | Not less than 22.0 | | | |
| | 672 ± 4h (28 Days)* | | Aw | aited | Not less than 33.0 | | | |
| | Setting Time (Minutes) | | | | | | | |
| 4 | Initial | | 1 | .50 | Not less than 30 | | | |
| | Final | | 2 | 215 | Not more than 600 | | | |
| | Soundness | | | | | | | |
| 5 | Le-Chatelier Expansion (mm) | | 0.5 | | Not more than 10.0 | | | |
| | Auto-Clave Expansion (%) | | 0. | 000 | Not more than 0.8 | | | |
| 6 | Drying Shrinkage (%)* | | Aw | aited | Not More than 0.1 | 5 | | |
| 7 | Normal Consistency (%) | | 3 | 0.8 | | | | |
| _ ′ | Temp. During Testing (°C) | | | 27 | $(27 \pm 2)^{0}$ C | | | |

| * Fly Ash Content in Cement is | (%) | 34.0 |
|--------------------------------|------|------|
| Thy han contain a cinonicio | (70) | 34.0 |

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

Manager (QA)

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Chief Manager -QA