



ACC

ACC Limited
Wadi Cement Works

WORK TEST CERTIFICATE



53 Grade Ordinary Portland Cement

| Despatched during Week No. | | 12 | From | 19/03/2017 | To | 25/03/2017 |
|-------------------------------------|--|------------------|--|------------|--------------|------------|
| Test Certificate No. | | 12 | Reference No. | | WD/LAB/TC/07 | |
| Dated | | 03/04/2017 | | | | |
| S.N. | Parameters | Results Obtained | Requirement as per IS 269 : 2015 (Variety: OPC 53) | | | |
| Chemical Composition | | | | | | |
| 1 | Lime Saturation Factor CaO - 0.7 SO ₃ / (2.8 SiO ₂ + 1.2 Al ₂ O ₃ + 0.65 Fe ₂ O ₃) | 0.90 | Not greater than 1.02 and not less than 0.80 | | | |
| | Ratio of % Alumina to that of Iron Oxide Al ₂ O ₃ / Fe ₂ O ₃ | 1.32 | Not less than 0.66 | | | |
| | Insoluble Residue (% by mass) | 0.5 | Not more than 5.0 % | | | |
| | Magnesia (% by mass) | 0.9 | Not more than 6.0 % | | | |
| | Sulphuric Anhydride (% by mass) | 3.0 | Not More than 3.5 % | | | |
| | Total loss on Ignition (%) | 1.7 | Not More than 4.0 % | | | |
| | Chloride Content (%) | 0.021 | Not More than 0.1 % for general purpose but not more than 0.05 % for pre-stressed structures | | | |
| Physical Analysis | | | | | | |
| 2 Fineness | | | | | | |
| | Blaine's Specific Surface Area (m ² / kg) | 297 | Not Less than 225 | | | |
| 3 Compressive Strength (MPa) | | | | | | |
| 3 | 72 ± 1h (3 Days) | 37.1 | Not less than 27.0 | | | |
| | 168 ± 2h (7 Days) | 46.6 | Not less than 37.0 | | | |
| | 672 ± 4h (28 Days) * | Awaited | Not less than 53.0 | | | |
| 4 Setting Time (Minutes) | | | | | | |
| 4 | Initial | 125 | Not less than 30 | | | |
| | Final | 185 | Not more than 600 | | | |
| 5 Soundness | | | | | | |
| 5 | Le-Chatelier Expansion (mm) | 1.0 | Not more than 10.0 | | | |
| | Auto-Clave Expansion (%) | 0.06 | Not more than 0.8 | | | |
| 6 Normal Consistency (%) | | | | | | |
| 6 | | 27.5 | | | | |
| | Temp. During Testing (°C) | 27 | (27 ± 2) ⁰ C | | | |

The above cement complies with the requirements of IS 269: 2015 (Variety: OPC 53) for 53 Grade Ordinary Portland Cement

Manager (QA)

Chief Manager Production