





IS 269

SOLAPUR GRINDING UNIT SOLAPUR, MAHARASHTRA

## **ENGINEERED FOR DURABILITY**

|  | TEST CERTIFICATE             | Week No                              | 26   |
|--|------------------------------|--------------------------------------|------|
|  | ORDINARY PORTLAND CEMENT 53G | Year                                 | 2022 |
| SAMPLE   | RESULT OBTAINED              | REQUIREMENT<br>IS: 269-2015          |      |
| TEST TYPE  | FROM TEST                    |                                      |      |
| PHYSICAL REQUIREMENTS                                    |                              |                                      |      |
| . Fineness -Blaine(M²/Kg)                                | 285                          | Not less than 225 M <sup>2</sup> /Kg |      |
| .Soundness:  |                              |                                      |      |
| .Autoclave Expansion (%)                                 | 0.020                        | Not more than 0.8 %                  |      |
| Le Chatelier Expansion (in mm)                           | 1.00                         | Not more than 10 mm                  |      |
| .Setting Time (in minutes)                               |                              |                                      |      |
| .Initial   | 150                          | Not less than 30 minutes             |      |
| 3.Final  | 230                          | Not more than 600 minutes            |      |
| .Compressive Strength (MPa)                              |                              |                                      |      |
| 1.72 ± 1 hr.(3 days)                                     | 34.2                         | Not Less than 27 MPa                 |      |
| 3.168 ± 2 hr.(7 days)                                    | 44.2                         | Not Less than 37 MPa                 |      |
| 2.672 ± 4 hr.(28 days)                                   | UT                           | Not Less than 53 MPa                 |      |
| CHEMICAL REQUIREMENTS                                    |                              |                                      |      |
| .Loss on Ignition (% by mass)                            | 1.45                         | 4 % Maximum                          |      |
| Insoluble Residue (% by mass)                            | 4.69                         | 5 % Maximum                          |      |
| .Magnesium Oxide (MgO) (% by mass)                       | 1.31                         | 6.0 % Maximum                        |      |
| .Total Sulphur content calculated as (SO3)<br>% by mass) | 2.80                         | 3.5 % Maximum                        |      |
| .Chlorides (% by mass)                                   | 0.013                        | 0.10 % Maximum                       |      |
| Lime Saturation Factor                                   |                              |                                      |      |
| <u>Cao - 0.7 So3</u><br>(2.8 SiO2+ 1.2 AL2O3+0.65Fe2O3)  | 0.84                         | 0.80 to 1.02                         |      |
| .A/F (Al2O3 / Fe2O3)                                     | 1.37                         | 0.66 Minimum                         |      |
| 3.Performance Improver Fly Ash (%)                       | 5.00                         | 5.0 % Maximum                        |      |

Water required for paste of standard consistency (%)

28.25

The above cement complies with the requirements of IS 269: 2015 For ORDINARY PORTLAND CEMENT 53G

Computer generated Report, hence Signature is not required

For BIS certification details see website bis.org.in

For Zuari Cement Ltd MANAGER (QC)