

## PREPARED FOR TITAN CEMENT Ltd. HULL

|                           |                          |             |
|---------------------------|--------------------------|-------------|
| REPORT REFERENCE          | Titan                    | 105         |
| CLIENT REFERENCE          | CHEMISTRY                | 2022        |
| SHIP REFERENCE            | "8-22"                   |             |
| SAMPLE                    | ORDINARY PORTLAND CEMENT |             |
| DATE OF RECEIPT OF SAMPLE | 5-Jul-22                 |             |
| DATE OF TESTS             | 5-Jul-22                 | to 2-Aug-22 |
| DATE OF REPORT            | 2-Aug-22                 |             |

### ALL RESULTS RELATE ONLY TO SAMPLE TESTED CHEMICAL COMPOSITION :- by mass, as received

|                        |        |                   |
|------------------------|--------|-------------------|
| IR                     | 0.57 % | (BSEN 196-6:2010) |
| SO <sup>3</sup>        | 2.75 % | (BSEN 196-3:2016) |
| LOI                    | 2.65 % | (BSEN 196-3:2016) |
| K <sub>2</sub> O       | 0.55 % | (BSEN 196-3:2016) |
| Na <sub>2</sub> O      | 0.14 % | (BSEN 196-3:2016) |
| Na <sub>2</sub> O (eq) | 0.50 % | (BSEN 196-3:2016) |
| Chloride               | 0.03 % | (BSEN 196-3:2016) |

### The following results are not covered by the laboratory's UKAS Schedule and were determined by xrf.

|                                |           |        |
|--------------------------------|-----------|--------|
| SiO <sub>2</sub>               | 20.70 MPa | By XRF |
| Al <sub>2</sub> O <sub>3</sub> | 4.29 MPa  | By XRF |
| Fe <sub>2</sub> O <sub>3</sub> | 4.10 MPa  | By XRF |
| CaO                            | 65.1 MPa  | By XRF |
| MgO                            | 1.17 MPa  | By XRF |

### The following results are not UKAS accredited:-

|                   |         |
|-------------------|---------|
| L.S.F.            | 0.96 %  |
| C <sub>3</sub> A  | 4.44 %  |
| C <sub>3</sub> S  | 56.97 % |
| C <sub>2</sub> S  | 16.38 % |
| C <sub>4</sub> AF | 12.46 % |
| Free Lime         | 2.03 %  |

## END OF REPORT

SIGNED:



Certificate signed by:

✓ S. Burton A.M.I.C.T  
Technical Manager

J.M. Burton  
Quality Manager