

## **Cement Test Certificate**

801 Berrimah Road, East Arm NT 0828 PO Box 39631, Winnellie NT 0821 T: +61 8 8984 0600 F: +61 8 8984 0610 www.adbri.com.au

ABN 22 009 593 515

Final

**Product Certified:** Type GP General Purpose Cement

Test Certificate Number: 210001

Produced At: Northern Cement, Darwin Plant, NT

 Sample Code:
 B07d966

 Sample Date:
 11/11/2020

| Nominal Blend                             | Requirements | Result  |
|---|--------------|---------|
| Clinker                                   |              | >86.5 % |
| Ground Granulated Iron Blast-Furnace Slag |              | Nil     |
| Mineral Addition                          | Max 7.5 %    | <7.5 %  |
| Calcium Sulphate                          |              | <5 %    |
| Minor Additional Constituents             | Max 5 %      | Nil     |

| Reportable Property                           | Test Method | Requirements of AS3972 | Result    |
|---|-------------|------------------------|-----------|
| 2 Day Characath                               | AC2250 44   |                        | 26 0 NAD- |
| 3 Day Strength                                | AS2350.11   | N/R                    | 36.9 MPa  |
| 7 Day Strength                                | AS2350.11   | Min 35.0 MPa           | 47.4 MPa  |
| 28 Day Strength                               | AS2350.11   | Min 45.0 MPa           | 65.0 MPa  |
| Initial Set Time                              | AS2350.4    | Min 45 min             | 120 min   |
| Final Set Time                                | AS2350.4    | Max 360 min            | 195 min   |
| Soundness                                     | AS2350.5    | Max 5 mm               | 1 mm      |
| Sulfuric Anhydride content (SO <sub>3</sub> ) | AS2350.2    | Max 3.5 %              | 3.1 %     |
| Chloride Ion                                  | BH-TM-0507  | Max 0.10 %             | 0.016 %   |
| Other Properties                              |             |                        |           |
| SiO <sub>2</sub>                              | AS2350.2    | N/R                    | 19.9 %    |
| $Al_2O_3$                                     | AS2350.2    | N/R                    | 5.2 %     |
| Fe <sub>2</sub> O <sub>3</sub>                | AS2350.2    | N/R                    | 2.8 %     |
| CaO   | AS2350.2    | N/R                    | 64.2 %    |
| MgO   | AS2350.2    | N/R                    | 1.2 %     |
| Na <sub>2</sub> O Equivalent                  | AS2350.2    | N/R                    | 0.6 %     |
| Loss on Ignition                              | AS2350.2    | N/R                    | 2.4 %     |
| Fineness Index                                | AS2350.8    | N/R                    | 325 m²/kg |
| Normal Consistency                            | AS2350.3    | N/R                    | 29.0 %    |

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## REMARKS

These test result apply specifically to the sample as received at the Adelaide Brighton Cement Birkenhead Laboratory (Accreditation number: 252), 62 Elder Rd Birkenhead SA 5015.

This despatch grab sample complies to the requirements of AS3972:2010, Type GP Cement.

N/R = No Requirement



Accredited for compliance with ISO/IEC 17025 - Testing. The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory

M. Wythe

**Issue Date:** 7/01/2021