## **FINAL REPORT**

CERTIFICATE No.: 24604



Boral Cement Limited N 62 008 528 523 Taylor Avenue New Berrima NSW 2577 Locked Bag 4 New Berrima NSW 2577 T +61 2 4860 2222

| TEST CERTIFICATE OF:   | Berrima Daily Despatch Shrinkage Limited Cement |  |  |
|------------------------|---|--|--|
| PRODUCED AT:           | Boral Cement Limited Berrima                    |  |  |
| TESTED AT:             | Berrima Works Laboratory                        |  |  |
| SAMPLE IDENTIFICATION: | BDDSL2300669                                    |  |  |
| DATE DESPATCHED:       | 28/02/2023                                      |  |  |

| PROPERTY                          | REQUIREM | ENTS OF AS 3972 | RESULT      |  |  |  |  |
|-----------------------------------|----------|-----------------|-------------|--|--|--|--|
| Compressive Strength (AS 2350.11) |          |                 |             |  |  |  |  |
| 3 Day                             |          |                 | 33.7 MPa    |  |  |  |  |
| 7 Day                             | Minimum  | 35 MPa          | 45.6 MPa    |  |  |  |  |
| 28 Day                            | Minimum  | 45 MPa          | 58.5 MPa    |  |  |  |  |
| Setting Time (AS 2350.4)          |          |                 |             |  |  |  |  |
| Initial                           | Minimum  | 45 mins         | 135 mins    |  |  |  |  |
| Final                             | Maximum  | 600 mins        | 195 mins    |  |  |  |  |
| Soundness (AS 2350.5)             | Maximum  | 5 mm            | 1 mm        |  |  |  |  |
| SO <sub>3</sub> (AS 2350.2)       | Maximum  | 3.5 %           | 2.7 %       |  |  |  |  |
| CI (AS 2350.2)                    | Maximum  | 0.10 %          | 0.02 %      |  |  |  |  |
| Shrinkage (AS 2350.13)            |          |                 |             |  |  |  |  |
| 28 Day Mean                       | Maximum  | 750 μstrain     | 550 μstrain |  |  |  |  |

## **OTHER REPORTABLE PROPERTIES**

| CHEMICAL                      |        | PHYSICAL            |             |                        |
|-------------------------------|--------|---------------------|-------------|------------------------|
| K <sub>2</sub> O (AS 2350.2)  | 0.50 % | Normal Consistency  | (AS 2350.3) | 28.2 %                 |
| Na <sub>2</sub> O (AS 2350.2) | 0.09 % | Fineness Index      | (AS 2350.8) | 400 m <sup>2</sup> /kg |
| LOI (AS 2350.2)               | 4.5 %  | Autoclave Expansion | (ASTM C151) | 0.02 %                 |

## REMARKS

Preparation of mortar and moulding of specimens in accordance with AS 2350.12. Sampling not carried out by laboratory. Samples tested as received. This cement is a Type SL (GP) cement with up to 7.5% limestone mineral addition.

Marc Smith Technical Services Manager Date of Issue: 14/04/2023

Accredited for compliance with ISO/IEC 17025 - Testing