

CERTIFICATE OF ANALYSIS

**CERTIFICATE No.** 0036-18  
**TEST CERTIFICATE FOR:** HE Portland Cement  
**PRODUCED AT:** Sunstate Cement Ltd, Port of Brisbane  
**SAMPLE IDENTIFICATION:** Spot Despatch Sample sample E6P-000915 sampled on 16/1/2018  
**SAMPLE TESTED AT:** Sunstate Cement Ltd, Port of Brisbane

| SPECIFIED PROPERTY                     | TEST METHOD          | AS3972 REQUIREMENTS |          | RESULT   |
|--|----------------------|---------------------|----------|----------|
| Compressive strength                   | AS2350.11, AS2350.12 |                     |          |          |
| 1 day                                  |                      |                     |          | 21.7 MPa |
| 3 day                                  |                      | Minimum             | 25 MPa   | 40.2 MPa |
| 7 day                                  |                      | Minimum             | 40 MPa   | 51.3 MPa |
| 28 day                                 |                      |                     |          | 61.2 MPa |
| Setting time                           | AS2350.4             |                     |          |          |
| Initial                                |                      | Minimum             | 45 mins  | 105 mins |
| Final                                  |                      | Maximum             | 360 mins | 180 mins |
| Soundness                              | AS2350.5             | Maximum             | 5 mm     | 0 mm     |
| Sulphuric anhydride (SO <sub>3</sub> ) | In House             | Maximum             | 3.5 %    | 2.9 %    |

| REPORTABLE PROPERTY | TEST METHOD |  |  | RESULT                 |
|---------------------|-------------|--|--|------------------------|
| Loss on ignition    | AS2350.2    |  |  | 2.9 %                  |
| Fineness            | AS2350.8    |  |  | 385 m <sup>2</sup> /kg |
| Chloride            | AS3583.13   |  |  | 0.0105 %               |

| OTHER PROPERTIES   | TEST METHOD |  |  | RESULT |
|--------------------|-------------|--|--|--------|
| Normal Consistency | In House    |  |  | 29.5 % |

**SAMPLING PROCEDURE:** Cement samples obtained according to the requirements of AS2350.1

**REMARKS:** The results of the above tests relate only to the sample as described above.



**G Santaguiliana**  
**Approved Signatory**  
**9-Mar-2018**



NATA accredited laboratory  
 Laboratory Number: 2190 / 2191  
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