

CERTIFICATE OF ANALYSIS

**CERTIFICATE No.** 0169-18  
**TEST CERTIFICATE FOR:** GP Portland Cement  
**PRODUCED AT:** Sunstate Cement Ltd, Port of Brisbane  
**SAMPLE IDENTIFICATION:** Spot Despatch Sample sample A6P-001915 sampled on 12/2/2018  
**SAMPLE TESTED AT:** Sunstate Cement Ltd, Port of Brisbane

SPECIFIED PROPERTY	TEST METHOD	AS3972 REQUIREMENTS		RESULT
Compressive strength	AS2350.11, AS2350.12			
3 day				37.8 MPa
7 day		Minimum	35 MPa	47.3 MPa
28 day		Minimum	45 MPa	57.7 MPa
Setting time	AS2350.4			
Initial		Minimum	45 mins	105 mins
Final		Maximum	360 mins	165 mins
Soundness	AS2350.5	Maximum	5 mm	1 mm
Sulphuric anhydride (SO <sub>3</sub> )	In House	Maximum	3.5 %	2.8 %
Chloride	AS3583.13	Maximum	0.1 %	0.016 %

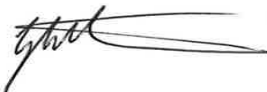
REPORTABLE PROPERTY	TEST METHOD			RESULT
Loss on ignition	AS2350.2			3.3 %
Fineness	AS2350.8			360 m <sup>2</sup> /kg
Total Alkali (Na <sub>2</sub> Oeq)	AS2350.2			0.6 %

OTHER PROPERTIES	TEST METHOD			RESULT
Normal Consistency	In House			28.8 %

**SAMPLING PROCEDURE:**

- The results of the above tests relate only to the sample as described above.
- Total Alkali determined at Australian Laboratory Services by ICP -AES using ME -ICP 91, Corporate Accreditation No 825, Corporate Site 818.

**REMARKS:**



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

