

CERTIFICATE OF ANALYSIS

**CERTIFICATE No.** 2226-18

**TEST CERTIFICATE FOR:** HE Portland Cement

**PRODUCED AT:** Sunstate Cement Ltd, Port of Brisbane

**SAMPLE IDENTIFICATION:** Spot Despatch Sample sample E6P-000961 sampled on 3/12/2018

**SAMPLE TESTED AT:** Sunstate Cement Ltd, Port of Brisbane

SPECIFIED PROPERTY	TEST METHOD	AS3972 REQUIREMENTS		RESULT
Compressive strength	AS2350.11, AS2350.12			
1 day				22.8 MPa
3 day		Minimum	25 MPa	40.0 MPa
7 day		Minimum	40 MPa	54.1 MPa
28 day				64.0 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 %	2.8 %

REPORTABLE PROPERTY	TEST METHOD			RESULT
Loss on ignition	AS2350.2			2.5 %
Fineness	AS2350.8			395 m <sup>2</sup> /kg
Chloride	AS3583.13			0.0177 %

OTHER PROPERTIES	TEST METHOD			RESULT
Normal Consistency	In House			29.2 %

**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**  
**4-Jan-2019**



NATA accredited laboratory  
 Laboratory Number: 2190 / 2191  
 Accredited for compliance with  
 ISO/IEC 17025

The results of the tests,  
 calibrations and/or measurements  
 included in this document are  
 traceable to Australian/national  
 standards. This document shall not  
 be reproduced except in full.