

CERTIFICATE OF ANALYSIS

**CERTIFICATE No.** 0989-19  
**TEST CERTIFICATE FOR:** HE Portland Cement  
**PRODUCED AT:** Sunstate Cement Ltd, Port of Brisbane  
**SAMPLE IDENTIFICATION:** Spot Despatch Sample sample E6P-000991 sampled on 22/7/2019  
**SAMPLE TESTED AT:** Sunstate Cement Ltd, Port of Brisbane

SPECIFIED PROPERTY	TEST METHOD	AS3972 REQUIREMENTS		RESULT
Compressive strength	AS2350.11, AS2350.12			
1 day				23.9 MPa
3 day		Minimum	25 MPa	43.3 MPa
7 day		Minimum	40 MPa	59.4 MPa
28 day				73.6 MPa
Setting time	AS2350.4			
Initial		Minimum	45 mins	105 mins
Final		Maximum	360 mins	180 mins
Soundness	AS2350.5	Maximum	5 mm	1 mm
Sulphuric anhydride (SO <sub>3</sub> )	In House	Maximum	3.5 %	3.0 %

REPORTABLE PROPERTY	TEST METHOD			RESULT
Loss on ignition	AS2350.2			2.8 %
Fineness	AS2350.8			405 m <sup>2</sup> /kg
Chloride	AS3583.13			0.0081 %

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**  
**3-Sep-2019**

