

CERTIFICATE OF ANALYSIS

**CERTIFICATE No.** 1368-18

**TEST CERTIFICATE FOR:** Type Milled Slag

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

**SAMPLE IDENTIFICATION:** Monthly Composite for the month of March 18

**MATERIAL SOURCE:** Nippon Steel Corporation

**POINT OF SAMPLING:** Final product air slide, Sunstate Cement Ltd, Port of Brisbane

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

**SAMPLE IDENTIFICATION:** T6M-000105



NATA accredited laboratory  
 Laboratory Number: 2191  
 Accredited for compliance with  
 ISO/IEC 17025 Testing  
 The results of the tests,  
 calibrations and/or measurements  
 included in this document are  
 traceable to Australian/national  
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SPECIFIED PROPERTY	TEST METHOD	AS3582.1 REQUIREMENTS		RESULT
Fineness	AS 3583.1			94 %
Insoluble residue	AS 3583.14			0.1 %
Loss on ignition	AS 3583.3			1.2 %
SO <sub>3</sub>	Inhouse			2.7 %
Chemical Properties				
Sulfide sulfur (S)	AS 3583.7	Maximum	1.5 %	0.6 %
Magnesia (MgO)	AS 2350.2	Maximum	15 %	6.2 %
Alumina (Al <sub>2</sub> O <sub>3</sub> )	AS 2350.2	Maximum	18 %	13.3 %
Total Iron (FeO)	AS 2350.2			0.6 %
Manganese (MnO)	AS 2350.2			0.2 %
Chloride	AS3583.13	Maximum	0.1 %	0.004 %
Total Alkali	AS2350.2			0.5 %
Avalible Alkali	AS3583.12			0.1 %
Relative Density	AS3583.5			2.8 g/cm <sup>3</sup>
Relative Water	AS3583.6			100 %
Relative Strength	AS3583.6			85.9 %

**SAMPLING PROCEDURE:** Slag samples obtained according to the requirements of AS2349

**REMARKS:**



**G Santaguilliana**  
**Approved Signatory**  
**7-Aug-2018**

- 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.
- XRF Analytical results determined at Australian Laboratory Services by XRF using ME -XRF 26,  
 Corporate Accreditation No 825, Corporate Site 818.
- Available alkali determined by: Boral Material Technical Services Accreditation No 547.