

CERTIFICATE OF ANALYSIS

**CERTIFICATE No.** 1171-19

**TEST CERTIFICATE FOR:** Type Milled Slag

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

**SAMPLE IDENTIFICATION:** Monthly Composite for the month of August 2019

**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-000122



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  
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SPECIFIED PROPERTY	TEST METHOD	AS3582.1 REQUIREMENTS		RESULT
Fineness	AS 3583.1			94 %
Insoluble residue	AS 3583.14			0.4 %
Loss on ignition	AS 3583.3			1.1 %
SO3	Inhouse			2.1 %
Chemical Properties				
Sulfide sulfur (S)	AS 3583.7	Maximum	1.5 %	0.6 %
Magnesia (MgO)	AS 2350.2	Maximum	15 %	5.7 %
Alumina (Al <sub>2</sub> O <sub>3</sub> )	AS 2350.2	Maximum	18 %	12.5 %
Total Iron (FeO)	AS 2350.2			0.7 %
Manganese (MnO)	AS 2350.2			0.2 %
Chloride	AS3583.13	Maximum	0.1 %	0.004 %
Total Alkali	AS2350.2			0.4 %
Available Alkali	AS3583.12			0.2 %
Relative Density	AS3583.5			2.8 g/cm <sup>3</sup>
Relative Water	AS3583.6			103 %
Relative Strength	AS3583.6			83 %

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

**REMARKS:**

1. The results of the above tests relate only to the sample as described above.
2. Available alkali determined by: Cement Australia Accreditation No 187 & 188.



**G Santaguiliana**  
**Approved Signatory**  
**5-Nov-2019**

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