Sunstate Cement Ltd.

CERTIFICATE OF ANALYSIS

CERTIFICATE No. 1392-19

TEST CERTIFICATE FOR: Type Milled Slag

PRODUCED AT: Sunstate Cement Ltd, Port of Brisbane

SAMPLE IDENTIFICATION: Monthly Composite for the month of October 19

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-000124

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 %
SO3	Inhouse			2.2 %
Chemical Properties				
Sulfide sulfur (S)	AS 3583.7	Maximum	1.5 %	0.6 %
Magnesia (MgO)	AS 2350.2	Maximum	15 %	6.0 %
Alumina (Al2O3)	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 %	0.003 %
Total Alkali	AS2350.2			0.5 %
Avalible Alkali	AS3583.12			0.1 %
Relative Density	AS3583.5			2.8 g/cm3
Relative Water	AS3583.6			100 %
Relative Strength	AS3583.6			84.3 %

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. Total Alkali determined at Cement Australia by ICP -AES using ME -ICP 91,
   Corporate Accreditation No 825, Corporate Site 187 & 188.
3. Available alkali determined by: Cement Australia Accreditation No 187 & 188.

G Santaguiliana
Approved Signatory
13-Jan-2020

A.B.N. 58 010 421 870
POSTAL ADDRESS: PO BOX 350, WYNNUM, QLD. 4178
PHONE: (07) 3895 9800 FAX: (07) 3895 9801