Sunstate Cement Ltd.

CERTIFICATE OF ANALYSIS

NATA

NATA accredited laboratory
Laboratory Number: 2191
Accredited for compliance with
ISO/IEC 17025 Testing
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CERTIFICATE No. 0637-19

TEST CERTIFICATE FOR: Type Grade 1 Fly Ash

PRODUCED AT: Sunstate Cement Ltd, Port of Brisbane

SAMPLE IDENTIFICATION: Monthly Composite for the month of February '19

MATERIAL SOURCE: Tarong Power station

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

SAMPLE TESTED AT: Sunstate Cement Ltd, Port of Brisbane

SAMPLE IDENTIFICATION: U6M-000144

SPECIFIED PROPERTY	TEST METHOD	AS3582.1 REQUIREMENTS		RESULT
Fineness	AS 3583.1	Minimum	75 %	81 %
Loss on ignition	AS 3583.3	Maximum	4 %	1.0 %
Moisture content	AS 3583.2	Maximum	0.5 %	0.1 %
SO3	Inhouse	Maximum	3 %	0.1 %
Total Alkali	AS 2350.2			0.5 %
Avalible Alkali	AS 3583.12			0.1 %
Chloride	AS 3583.13	Maximum	0.1 %	0.004 %
SiO2 + Al2O3 + Fe2O3	AS 2350.2	Minimum	70 %	96 %
Relative Density	AS 3583.5			2.3 g/cm3
Relative Water	AS 3583.6			95 %
Relative Strength	AS 3583.6	Minimum	75 %	94.3 %

SAMPLING PROCEDURE: Fly ash samples obtained according to the requirements of AS2350.1

REMARKS:

1. The results of the above tests relate only to the sample as described above.
2. Total Alkali determined at Australian Laboratory Services by ICP -AES using ME -ICP 91, Corporate Accreditation No 825, Corporate Site 818.
3. XRF Analytical results determined at Australian Laboratory Services by XRF using ME -XRF 26, Corporate Accreditation No 825, Corporate Site 818.
4. Available alkali determined by: Boral Material Technical Services Accreditation No 547.

G Santaguiliana
Approved Signatory
8-May-2019

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