

CERTIFICATE OF ANALYSIS

CERTIFICATE No. 0650-18

TEST CERTIFICATE FOR: Type Grade 1 Fly Ash

PRODUCED AT: Sunstate Cement Ltd, Port of Brisbane

SAMPLE IDENTIFICATION: Monthly Composite for the month of April '18

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-000134



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
 standards. This document shall not
 be reproduced except in full.

SPECIFIED PROPERTY	TEST METHOD	AS3582.1 REQUIREMENTS		RESULT
Fineness	AS 3583.1	Minimum	75 %	83 %
Loss on ignition	AS 3583.3	Maximum	4 %	1.5 %
Moisture content	AS 3583.2	Maximum	0.5 %	0.1 %
SO ₃	Inhouse	Maximum	3 %	0.1 %
Total Alkali	AS 2350.2			0.5 %
Available Alkali	AS 3583.12			0.1 %
Chloride	AS 3583.13	Maximum	0.1 %	0.001 %
SiO ₂ + Al ₂ O ₃ + Fe ₂ O ₃	AS 2350.2	Minimum	70 %	94 %
Relative Density	AS 3583.5			2.2 g/cm ³
Relative Water	AS 3583.6			106 %
Relative Strength	AS 3583.6	Minimum	75 %	86.7 %

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

REMARKS:



- 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.

G Santaguiliana
Approved Signatory
7-Aug-2018

Page 1 of 1