## STANDARD FLY ASH CERTIFICATE



**FINAL** 

Prior Reports: None

Certificate Number: CERT200692

Issued: 31 March 2020

Flyash Australia Pty Ltd ABN 68 002 840 271 Head Office C/- Lindfield Corporate Centre Suite 18, 12 Tryon Road Lindfield NSW 2070

Tel: (02) 9413 8422 Fax: (02) 9413 84.32

Product being certified: Mt Piper Monthly Grab Fly Ash

Product sample date: 11-Mar-2020

Sample Identification: Sample Code: 20030361
Source Power Station: Mount Piper Power Station

Sample Condition: Tested as Received. Testing Commenced on 11-Mar-2020

Certifying Laboratory: Cement Australia - Darra Laboratory,

18 Station Avenue, Darra Queensland 4076 Australia.

## **Test Results**

Test	Moisture	Fineness @ 45 micron	Loss on Ignition	Sulfuric Anhydride	Available Alkali	Chloride Ion	Chemical Composition
	%	% Passed	%	%	%	%	%
Result	0.1	82	1.8	< 0.1	n/a	0.003	94.0
Test Method	AS3583.2	AS3583.1	AS3583.3	AS2350.2	AS3583.12	AS3583.13	AS2350.2
AS 3582.1	0.5% Maximum	75% Minimum	4.0 % Maximum	3.0% Maximum	-	0.1 % Maximum	70% Minimum

Test	Relative Density	Relative Water Requirement	Strength Index 7 Day Acc.	Reference Cement Details	
		%	%	Identification:: 20030471D	
Result	2.11	97	95	Source: Goliath GP	
Test Method	AS3583.5	AS3583.6	AS3583.6	Product Type: Type GP	
AS 3582.1	-	-	75% Minimum	Sample Date: 20-Mar-20	

**Additional Testing - Oxides** 

Test	CaO by XRF %	SiO <sub>2</sub> by XRF	Al <sub>2</sub> O <sub>3</sub> by XRF	Fe <sub>2</sub> O <sub>3</sub> by XRF	SO₃ by XRF %	MgO by XRF %	Na₂O by XRF %
Result	0.2	65.4	25.7	2.9	< 0.1	0.2	0.56
Test Method	AS2350.2	AS2350.2	AS2350.2	AS2350.2	AS2350.2	AS2350.2	AS2350.2

Test	K₂O by XRF	SrO by XRF	TiO2 by XRF	P <sub>2</sub> O <sub>5</sub> by XRF	Mn <sub>2</sub> O <sub>3</sub> by XRF	Total Alkali (NaEQ)
	%	%	%	%	%	%
Result	2.49	<0.1	0.9	0.2	< 0.1	2.20
Test Method	AS2350.2	AS2350.2	AS2350.2	AS2350.2	AS2350.2	AS2350.2

This sample grade conforms to the following requirements of AS 3582.1:2016

Special		Grade 1	Grade 2		
		X			

**Approved Signatory** 

A Prem

Signatory - Cement Australia

**Chemical Testing** 

Construction Materials Testing

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.

Cement Australia - Darra Laboratory NATA Accredited Laboratory Numbers 187 188



Notes:

