## STANDARD FLY ASH CERTIFICATE



FINAL Prior Reports: None

Certificate Number: CERT200309 Issued: 12 February 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: Product sample date: Sample Identification: Source Power Station: Sample Condition: Certifying Laboratory: Mundra Monthly Grab Fly Ash 17-Jan-2020 Sample Code: 20010572 Imported Ash Tested as Received. Testing Commenced on 21-Jan-2020 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	89	0.2	1.0	n/a	0.008	71.1
Test Method	AS3583.2	AS3583.1	AS3583.3	AS2350.2	AS3583.12	AS3583.13	AS2350.2
AS 3582.1	0.5% Maximum	85% Minimum	3.0 % Maximum	3.0% Maximum	-	0.1 % Maximum	70% Minimum

Test	Relative Density	Relative Water Requirement	Strength Index 7 Day Acc.	Reference Cement Details	
		%	%	Identification:: 20010841	
Result	2.72	88	127	Source: Goliath GP	
Test Method	AS3583.5	AS3583.6	AS3583.6	Product Type: Type GP	
AS 3582.1	-	-	Exceeds 105%	Sample Date: 29-Jan-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	Na <sub>2</sub> O by XRF
	%	%	%	%	%	%	%
Result	15.1	41.1	18.1	11.9	1.0	7.6	1.55
Test Method	AS2350.2	AS2350.2	AS2350.2	AS2350.2	AS2350.2	AS2350.2	AS2350.2

Test	K <sub>2</sub> O	SrO	TiO2	P <sub>2</sub> O <sub>5</sub>	Mn <sub>2</sub> O <sub>3</sub>	Total Alkali
Test	by XRF %	by XRF %	by XRF %	by XRF %	by XRF %	(NaEQ) %
Result	1.45	0.1	0.8	0.4	0.1	2.50
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
Х	Х	



Signatory - Cement Australia Chemical Testing Construction Materials Testing

Notes:

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



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