STANDARD FLY ASH CERTIFICATE



FINAL Reports: None

Prior Reports: None

Certificate Number: CERT190825

Issued: 27 May 2019

Independent Flyash Brokers Pty

Ltd

Head Office 431 Moffatt Reserve Millmerran QLD 4357

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Product being certified: Independent Flyash Broker Monthly Grab Fly Ash

Product sample date: 04-Apr-2019

Sample Identification:Sample Code: 19040623Source Power Station:Millmerran Power Station

Sample Condition: Tested as Received. Testing Commenced on 16-Apr-2019

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	86	0.2	< 0.1	Not Tested	< 0.001	95.5
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	Reference Cement Details
		%	%	Identification:: 19040745
Result	1.91	95	88	Source: Goliath GP
Test Method	AS3583.5	AS3583.6	AS3583.6	Product Type: Type GP
AS 3582.1	-	-	75% Minimum	Sample Date: 24-Apr-19

Additional Testing - Oxides

Test	CaO by XRF %	SiO ₂ by XRF	Al ₂ O ₃ by XRF	Fe ₂ O ₃ by XRF	SO₃ by XRF %	MgO by XRF %	Na ₂ O by XRF %
	70	70	70	70	70	70	70
Result	1.0	56.3	36.1	3.1	< 0.1	0.6	0.32
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 ₂ O ₅ by XRF	Mn ₂ O ₃ by XRF	Total Alkali (NaEQ)
	%	%	%	%	%	%
Result	0.61	<0.1	1.9	0.2	< 0.1	0.72
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:

