

# STANDARD FLY ASH CERTIFICATE



FINAL  
Prior Reports: None

Independent Flyash Brokers Pty Ltd

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Certificate Number: CERT202773  
Issued: 07 December 2020

**Product being certified:** Independent Flyash Broker Monthly Grab Fly Ash  
**Product sample date:** 16-Nov-2020  
**Sample Identification:** Sample Code: 20110948  
**Source Power Station:** Millmerran Power Station  
**Sample Condition:** Tested as Received. Testing Commenced on 20-Nov-2020  
**Certifying Laboratory:** Cement Australia - Darra Laboratory,  
18 Station Avenue, Darra Queensland 4076 Australia.

## Test Results

Test	Moisture %	Fineness @ 45 micron % Passed	Loss on Ignition %	Sulfuric Anhydride %	Available Alkali %	Chloride Ion %	Chemical Composition %
Result	< 0.1	83	0.2	0.1	Not Tested	< 0.001	93.7
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
Result	1.90	94	88	Identification:: 20111036 Source: Goliath GP
Test Method	AS3583.5	AS3583.6	AS3583.6	Product Type: Type GP
AS 3582.1	-	-	75% Minimum	Sample Date: 23-Nov-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 %	SO <sub>3</sub> by XRF %	MgO by XRF %	Na <sub>2</sub> O by XRF %
Result	2.8	57.4	33.5	2.8	0.1	0.7	0.39
Test Method	AS2350.2	AS2350.2	AS2350.2	AS2350.2	AS2350.2	AS2350.2	AS2350.2

Test	K <sub>2</sub> O by XRF %	SrO by XRF %	TiO <sub>2</sub> 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	0.64	<0.1	1.8	0.2	< 0.1	0.81
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.



ACCREDITED FOR  
**TECHNICAL  
COMPETENCE**

**Cement Australia - Darra Laboratory**  
NATA Accredited Laboratory Numbers  
187 188

Notes:

