

# STANDARD FLY ASH CERTIFICATE



**FINAL**  
Prior Reports: None

Independent Flyash Brokers Pty Ltd

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**Certificate Number:** CERT213563  
**Issued:** 29 November 2021

**Product being certified:** Independent Flyash Broker Monthly Grab Fly Ash  
**Product sample date:** 01-Nov-2021  
**Sample Identification:** Sample Code: 21110110  
**Source Power Station:** Millmerran Power Station  
**Sample Condition:** Tested as Received. Testing Commenced on 03-Nov-2021  
**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	87	0.2	0.1	Not Tested	< 0.002	94.3
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	1.88	91	98	Identification:: 21110278 Source: Goliath GP
Test Method	AS3583.5	AS3583.6	AS3583.6	Product Type: Type GP
AS 3582.1	-	-	75% Minimum	Sample Date: 08-Nov-21

## 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	1.8	59.8	31.5	3.0	0.1	1.0	0.43
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	0.62	<0.1	1.6	0.2	< 0.1	0.84
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:

