

# STANDARD FLY ASH CERTIFICATE



**MILLMERRAN  
FLYASH**  
SUSTAINABLE STRENGTH

**FINAL**  
Prior Reports: None

**Certificate Number:** CERT210185  
**Issued:** 21 January 2021

**Independent Flyash Brokers Pty Ltd**  
Head Office  
431 Moffatt Reserve  
Millmerran QLD 4357  
Tel : (07) 4695 6033  
Fax: (07) 4695 6133  
www.mflyash.com.au

**Product being certified:** Independent Flyash Broker Monthly Grab Fly Ash  
**Product sample date:** 08-Dec-2020  
**Sample Identification:** Sample Code: 20120551  
**Source Power Station:** Millmerran Power Station  
**Sample Condition:** Tested as Received. Testing Commenced on 16-Dec-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	82	0.4	0.1	Not Tested	< 0.001	93.9
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	1.84	94	91	Identification:: 21010011 Source: GP
Test Method	AS3583.5	AS3583.6	AS3583.6	Product Type: Type GP
AS 3582.1	-	-	75% Minimum	Sample Date: 04-Jan-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	2.4	58.2	33.2	2.5	0.1	0.7	0.42
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	0.56	<0.1	1.6	0.2	< 0.1	0.79
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

V Connell  
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



ACCREDITED FOR  
**TECHNICAL  
COMPETENCE**

### Notes:

