

# STANDARD FLY ASH CERTIFICATE



**FINAL**  
Prior Reports: None

**Independent Flyash Brokers Pty Ltd**  
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**Certificate Number:** CERT241970  
**Issued:** 21 June 2024

**Product being certified:** Independent Flyash Broker Monthly Grab Fly Ash  
**Product sample date:** 28-May-2024  
**Sample Identification:** Sample Code: 24060201  
**Source Power Station:** Millmerran Power Station  
**Sample Condition:** Tested as Received. Testing Commenced on 05-Jun-2024  
**Certifying Laboratory:** Cement Australia - Darra Laboratory,  
18 Station Avenue, Darra Queensland 4076 Australia.

## Test Results

| Test          | Moisture<br>% | Fineness @<br>45 micron<br>% Passed | Loss on<br>Ignition<br>% | Sulfuric<br>Anhydride<br>% | Available<br>Alkali<br>% | Chloride<br>Ion<br>% | Chemical<br>Composition<br>% |
|---------------|---------------|-------------------------------------|--------------------------|----------------------------|--------------------------|----------------------|------------------------------|
| Result        | < 0.1         | 91                                  | 0.1                      | 0.1                        | Not Tested               | < 0.002              | 94.8                         |
| Test Method   | AS 3583.2     | AS 3583.1                           | AS 3583.3                | AS 2350.2                  | AS 3583.12               | AS 3583.13           | AS 2350.2                    |
| AS/NZS 3582.1 | 0.5 % Maximum | 75% Minimum                         | 4.0 % Maximum            | 3.0 % Maximum              | -                        | 0.1 % Maximum        | 70% Minimum                  |

| Test          | Relative<br>Density | Relative Water<br>Requirement<br>% | Strength Index<br>7 Day Acc.<br>% | Reference Cement Details                        |
|---------------|---------------------|------------------------------------|-----------------------------------|---|
| Result        | 1.97                | 95                                 | 93                                | Identification:: 24060244<br>Source: Goliath GP |
| Test Method   | AS 3583.5           | AS 3583.6                          | AS 3583.6                         | Product Type: Type GP                           |
| AS/NZS 3582.1 | -                   | -                                  | 75% Minimum                       | Sample Date: 7-Jun-24                           |

## Additional Testing - Oxides

| Test        | CaO<br>by XRF<br>% | SiO <sub>2</sub><br>by XRF<br>% | Al <sub>2</sub> O <sub>3</sub><br>by XRF<br>% | Fe <sub>2</sub> O <sub>3</sub><br>by XRF<br>% | SO <sub>3</sub><br>by XRF<br>% | MgO<br>by XRF<br>% | Na <sub>2</sub> O<br>by XRF<br>% |
|-------------|--------------------|---------------------------------|---|---|--------------------------------|--------------------|----------------------------------|
| Result      | 1.6                | 57.7                            | 34.5  | 2.6   | 0.1                            | 0.9                | 0.38                             |
| Test Method | AS 2350.2          | AS 2350.2                       | AS 2350.2                                     | AS 2350.2                                     | AS 2350.2                      | AS 2350.2          | AS 2350.2                        |

| Test        | K <sub>2</sub> O<br>by XRF<br>% | SrO<br>by XRF<br>% | TiO <sub>2</sub><br>by XRF<br>% | P <sub>2</sub> O <sub>5</sub><br>by XRF<br>% | Mn <sub>2</sub> O <sub>3</sub><br>by XRF<br>% | Total Alkali<br>(NaEQ)<br>% |
|-------------|---------------------------------|--------------------|---------------------------------|--|---|-----------------------------|
| Result      | 0.71                            | <0.1               | 1.7                             | 0.2  | < 0.1   | 0.85                        |
| Test Method | AS 2350.2                       | AS 2350.2          | AS 2350.2                       | AS 2350.2                                    | AS 2350.2                                     | AS 2350.2                   |

This sample conforms to the material requirements as prescribed in Table 1 of AS 3582.1

| Special | Grade 1 | Grade 2 |
|---------|---------|---------|
|         | X       |         |

**Approved Signatory**

*V Connell*

V Connell  
Signatory - Cement Australia  
Chemical Testing  
Construction Materials Testing

Accredited for compliance with ISO/IEC 17025 - Testing  
NATA is a signatory to the ILAC Mutual Recognition  
Arrangement for the mutual recognition of the  
equivalence of testing, medical testing, calibration,  
inspection, proficiency testing scheme providers and  
reference materials producers reports and certificates.



Laboratory accreditation number: 188  
Laboratory accreditation number: 187

Notes:

