STANDARD FLY ASH CERTIFICATE



FINAL
Prior Reports: None

Certificate Number: CERT212348

Issued: 23 August 2021

Flyash Australia Pty Ltd ABN 68 002 840 271 P.O. Box 190 Eastwood NSW 2122 Email: contact@flyash.com.au www.flyashaustralia.com.au

Product being certified: Bayswater - Microash Monthly Grab Fly Ash

Product sample date: 03-Aug-2021

Sample Identification: Sample Code: 21080221
Source Power Station: Bayswater Power Station

Sample Condition: Tested as Received. Testing Commenced on 09-Aug-2021

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 | 97 | 0.5 | 0.1 | n/a | < 0.001 | 97.0 |
| Test Method | AS3583.2 | AS3583.1 | AS3583.3 | AS2350.2 | AS3583.12 | AS3583.13 | AS2350.2 |
| AS 3582.1 | 0.5 % Maximum | 85% Minimum | 3.0 % Maximum | 3.0 % Maximum | - | 0.1 % Maximum | 70% Minimum |

| Test | Relative Density | Relative Water Requirement | Strength Index 7 Day Acc. | Reference Cement Details | |
|-------------|---------------------|-------------------------------|---------------------------|---------------------------|--|
| | | % | % | Identification:: 21080227 | |
| Result | 2.27 | 92 | 131 | Source: Goliath GP | |
| Test Method | AS3583.5 | AS3583.6 | AS3583.6 | Product Type: Type GP | |
| AS 3582.1 | - | - | Exceeds 105% | Sample Date: 09-Aug-21 | |

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 % | Na₂O by XRF % |
|-------------|--------------------|---------------------------------|---|---|--------------------|--------------------|---------------------|
| Result | 0.5 | 79.9 | 14.1 | 3.0 | 0.1 | 0.3 | < 0.1 |
| 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 | Mn₂O₃ by XRF | Total Alkali (NaEQ) |
|-------------|---------------|---------------|----------------|---|-----------------|------------------------|
| | % | % | % | % | % | % |
| Result | 0.74 | <0.1 | 0.4 | 0.2 | < 0.1 | 0.58 |
| 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 |
|---------|---------|---------|
| Х | Х | |

Approved Signatory

A Prem Signatory - Cement Australia Chemical Testing

Construction Materials Testing

Construction Materials Testin

17025 - Testing. The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Accredited for compliance with ISO/IEC

Cement Australia - Darra Laboratory NATA Accredited Laboratory Numbers 187 188



Notes:

