



CERTIFICATE OF QUALITY

EverPlus™ (Class C Flyash)



Name of Power Station **Huntly**
 Source of Sampling **Eastport & Portland Flyash Silos**

Testing Laboratory **GBC & Cement Australia**
 Grade of Sample **Grade 1**

Issued to: **National Sales Manager**

Test Report No: **20#95**

| Code | Date of Sampling | Moisture % | Loss on Ignition % | Passing 45 Micron % | Sulphate SO3* % | Available Alkali* % | Total Alkali (Na2O Equiv) % | Relative Density | Relative Water % | Strength Index % | Chloride* % | Chemical Composition (SiO2 + Al2O3 + Fe2O3) |
|--------------------|------------------|------------|--------------------|---------------------|-----------------|---------------------|-----------------------------|------------------|------------------|------------------|-------------|---|
| Mean | | 0.1 | 0.6 | 87.2 | 0.8 | 1.0 | 1.85 | 2.62 | 92.8 | 107.2 | 0.014 | 67.1 |
| Standard Deviation | | 0.0 | 0.2 | 1.7 | 0.1 | 0.1 | 0.55 | 0.06 | 0.7 | 2.6 | 0.004 | 2.8 |
| Min | | 0.0 | 0.3 | 83.2 | 0.7 | 0.9 | 1.41 | 2.56 | 91.9 | 103.8 | 0.009 | 62.8 |
| Max | | 0.1 | 1.1 | 91.0 | 0.8 | 1.0 | 4.27 | 2.70 | 93.7 | 109.2 | 0.018 | 71.8 |
| AS/NZS 3582.1:2016 | | <0.5 | < 4.0 | > 75 | < 3.0 | | | | | | <0.1 | > 60% |
| 200514-659 | 14/05/20 | 0.1 | 0.3 | 85.8 | # | # | 1.87 | # | # | # | # | 71.5 |
| 200508-544 | 08/05/20 | 0.1 | 0.5 | 91.0 | # | # | 4.27 | # | # | # | # | 66.3 |
| 200229-423 | 29/02/20 | 0.1 | 0.7 | 87.3 | 0.8 | 1.0 | 1.65 | 2.66 | 93.3 | 109.2 | 0.018 | 64.1 |
| 200220-048 | 20/02/20 | 0.0 | 0.4 | 88.3 | # | # | 2.09 | # | # | # | # | 69.8 |
| 200215-941 | 15/02/20 | 0.1 | 0.6 | 89.3 | # | # | 1.57 | # | # | # | # | 63.1 |
| 200208-614 | 08/02/20 | 0.0 | 0.6 | 88.6 | # | # | 1.48 | # | # | # | # | 62.8 |
| 200131-675 | 31/01/20 | 0.0 | 0.6 | 88.0 | # | # | 1.55 | 2.70 | 91.9 | 109.2 | 0.016 | 64.2 |
| 200125-267 | 25/01/20 | 0.0 | 0.5 | 88.9 | # | # | 1.41 | # | # | # | # | 63.0 |
| 200118-596 | 18/01/20 | 0.0 | 0.5 | 88.7 | # | # | 1.55 | # | # | # | # | 63.5 |
| 200111-595 | 11/01/20 | 0.0 | 0.6 | 89.0 | # | # | 1.60 | # | # | # | # | 63.9 |
| 191230-347 | 30/12/19 | 0.1 | 0.6 | 87.3 | 0.8 | 1.0 | 1.90 | 2.59 | 92.4 | 104.8 | 0.017 | 67.9 |
| 191221-523 | 21/12/19 | 0.0 | 0.5 | 88.1 | # | # | 1.71 | # | # | # | # | 65.8 |
| 191214-522 | 14/12/19 | 0.0 | 1.1 | 88.0 | # | # | 1.77 | # | # | # | # | 66.4 |
| 191212-599 | 12/12/19 | 0.0 | 0.3 | 88.3 | # | # | 2.12 | # | # | # | # | 71.8 |
| 191207-676 | 07/12/19 | 0.0 | 0.7 | 86.0 | # | # | 2.30 | # | # | # | # | 68.1 |
| 191130-890 | 30/11/19 | 0.1 | 0.6 | 85.9 | # | # | 1.88 | # | # | # | # | 68.7 |
| 191130-229 | 30/11/19 | 0.1 | 0.7 | 83.2 | 0.7 | 1.0 | 1.74 | 2.56 | 92.8 | 103.8 | 0.009 | 68.1 |
| 191123-742 | 23/11/19 | 0.1 | 0.6 | 86.9 | # | # | 1.81 | # | # | # | # | 67.8 |
| 191121-478 | 21/11/19 | 0.0 | 0.4 | 85.7 | # | # | 1.81 | # | # | # | # | 70.2 |
| 191116-071 | 16/11/19 | 0.0 | 0.7 | 85.1 | # | # | 1.78 | # | # | # | # | 68.4 |
| 191109-070 | 09/11/19 | 0.1 | 1.0 | 85.9 | # | # | 1.49 | # | # | # | # | 65.1 |
| 191102-418 | 02/11/19 | 0.1 | 0.8 | 85.8 | # | # | 1.63 | # | # | # | # | 68.7 |
| 191030-755 | 30/10/19 | 0.1 | 0.7 | 88.0 | 0.7 | 0.9 | 1.61 | 2.60 | 93.7 | 108.8 | 0.012 | 67.8 |
| 191026-417 | 26/10/19 | 0.0 | 0.6 | 86.4 | # | # | 1.71 | # | # | # | # | 68.4 |
| 191024-978 | 24/10/19 | 0.0 | 0.3 | 85.2 | # | # | 1.84 | # | # | # | # | 71.1 |

* Cement Australia, Nata Accredited Laboratory Nos: 187 188

The Relative Water & Relative Strength Tests used NZS 3122 Type GP cement in the mortars
 The above samples were tested as received in accordance with methods stated in the AS 3583 series.

Total alkali & chemical composition results outside the scope of accreditation.

No result available at time of certificate issue
 # Test requirements not met due to covid lockdown

This Report must not be reproduced except in full

Jim White

Jim White
 Quality System Co-ordinator

Date issued: 29/05/20



Portland Works, Portland, Whangarei 0178