



ABN 50 006 673 470

Cement Test Certificate

Final

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Product Certified: Type GP General Purpose Cement
Test Certificate Number: 180391
Produced At: Cockburn Cement, Munster Plant, WA
Sample Code: B062341
Sample Date: 19/03/2018

| Nominal Blend | Requirements | Result |
|---|--------------|---------|
| Clinker | | >86.5 % |
| Ground Granulated Iron Blast-Furnace Slag | | Nil |
| Mineral Addition | Max 7.5 % | <7.5 % |
| Calcium Sulphate | | <5 % |
| Minor Additional Constituents | Max 5 % | Nil |

| Reportable Property | Test Method | Requirements of AS3972 | Result |
|---|-------------|------------------------|----------|
| 3 Day Strength | AS2350.11 | N/R | 42.4 MPa |
| 7 Day Strength | AS2350.11 | Min 35.0 MPa | 57.1 MPa |
| 28 Day Strength | AS2350.11 | Min 45.0 MPa | 63.1 MPa |
| Initial Set Time | AS2350.4 | Min 45 min | 135 min |
| Final Set Time | AS2350.4 | Max 360 min | 210 min |
| Soundness | AS2350.5 | Max 5 mm | 1 mm |
| Sulfuric Anhydride content (SO ₃) | AS2350.2 | Max 3.5 % | 3.0 % |
| Chloride Ion | BH-TM-0507 | Max 0.10 % | 0.007 % |

| Other Properties | | | |
|--------------------------------|----------|-----|------------------------|
| SiO ₂ | AS2350.2 | N/R | 18.9 % |
| Al ₂ O ₃ | AS2350.2 | N/R | 5.1 % |
| Fe ₂ O ₃ | AS2350.2 | N/R | 2.8 % |
| CaO | AS2350.2 | N/R | 63.3 % |
| MgO | AS2350.2 | N/R | 1.5 % |
| Na ₂ O Equivalent | AS2350.2 | N/R | 0.5 % |
| Loss on Ignition | AS2350.2 | N/R | 3.9 % |
| Fineness Index | AS2350.8 | N/R | 370 m ² /kg |
| Normal Consistency | AS2350.3 | N/R | 28.3 % |

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REMARKS

These test result apply specifically to the sample as received at the Adelaide Brighton Cement Birkenhead Laboratory (Accreditation number: 252), 62 Elder Rd Birkenhead SA 5015.

This despatch grab sample complies to the requirements of AS3972:2010, Type GP Cement.

N/R = No Requirement



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.

Approved Signatory

F. Pope

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