

**Product Certified:** Type LH Low Heat Cement  
**Test Certificate Number:** 170587  
**Produced At:** Northern Cement, Darwin Plant, NT  
**Sample Code:** B05e123  
**Sample Date:** 20/09/2017

Nominal Blend	Requirements	Result
Clinker		30%
Ground Granulated Iron Blast-Furnace Slag		65%
Mineral Addition	Max 7.5 %	Nil
Calcium Sulphate		<5 %
Minor Additional Constituents	Max 5 %	Nil

Reportable Property	Test Method	Requirements of AS3972	Result
3 Day Strength	AS2350.11	N/R	15.5 MPa
7 Day Strength	AS2350.11	Min 10.0 MPa	27.8 MPa
28 Day Strength	AS2350.11	Min 30.0 MPa	47.5 MPa
Initial Set Time	AS2350.4	Min 45 min	120 min
Final Set Time	AS2350.4	Max 600 min	240 min
Soundness	AS2350.5	Max 5 mm	1 mm
Sulfuric Anhydride content (SO <sub>3</sub> )	AS3583.8	Max 3.5 %	2.8 %
Chloride Ion	AS3583.13	Max 0.10 %	0.004 %
Peak Temp Rise	AS2350.7	Max 23 °C	23.0°C

**Other Properties**

SiO <sub>2</sub>	AS2350.2	N/R	27.5 %
Al <sub>2</sub> O <sub>3</sub>	AS2350.2	N/R	9.6 %
Fe <sub>2</sub> O <sub>3</sub>	AS2350.2	N/R	1.8 %
CaO	AS2350.2	N/R	52.3 %
MgO	AS2350.2	N/R	4.0 %
Na <sub>2</sub> O Equivalent	AS2350.2	N/R	0.5 %
Loss on Ignition	AS2350.2	N/R	0.4 %
Fineness Index	AS2350.8	N/R	385 m <sup>2</sup> /kg
Normal Consistency	AS2350.3	N/R	31.0 %

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**REMARKS**

These test results apply specifically to the above designated sample as received for the date shown.  
 Adelaide Brighton Cement Birkenhead Laboratory (Accredited number: 252), 62 Elder Rd Birkenhead 5015, is responsible for testing in accordance with AS2350.2:2006, AS2350.8:2006, AS3583.8:19991 and AS3583.13:1991.  
 Adelaide Brighton Cement Angaston Laboratory (Accredited number: 73), Stockwell Rd Angaston 5353, is responsible for testing in accordance with AS2350.3:2006, AS2350.4:2006, AS2350.5:2006, AS2350.7:2006, AS2350.11:2006 and AS2350.12:2006.  
 This despatch grab sample complies to the requirements of AS3972:2010, Type LH 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

**Issue Date:** 6/11/2017