

# Cement Test Certificate

Final

**Product Certified:** Type LH Low Heat Cement  
**Test Certificate Number:** 170064  
**Produced At:** Northern Cement, Darwin Plant, NT  
**Sample Code:** C0b315a  
**Sample Date:** 23/03/2017

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	14.3 MPa
7 Day Strength	AS2350.11	Min 10.0 MPa	27.4 MPa
28 Day Strength	AS2350.11	Min 30.0 MPa	47.3 MPa
Initial Set Time	AS2350.4	Min 45 min	195 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	ASTM C114	Max 0.10 %	0.006 %
Peak Temp Rise	AS2350.7	Max 23 °C	21.0 °C

## Other Properties

SiO <sub>2</sub>	AS2350.2	N/R	27.7 %
Al <sub>2</sub> O <sub>3</sub>	AS2350.2	N/R	9.8 %
Fe <sub>2</sub> O <sub>3</sub>	AS2350.2	N/R	1.7 %
CaO	AS2350.2	N/R	50.3 %
MgO	AS2350.2	N/R	3.9 %
Na <sub>2</sub> O Equivalent	AS2350.2	N/R	0.4 %
Loss on Ignition	AS2350.2	N/R	1.3 %
Fineness Index	AS2350.8	N/R	390 m <sup>2</sup> /kg
Normal Consistency	AS2350.3	N/R	32.8 %

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## REMARKS

These test results apply specifically to the sample as received at the Cockburn Cement Laboratory (Accredited Numbers 249 and 254), Lot 242 Russell Rd East Munster 6166.

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.

*Rodd Clark*

Approved Signatory

R. Clark

**Issue Date:** 12/05/2017