

## **Cement Test Certificate**

Lot 242 Russell Road East, Munster WA 6166 PO Box 38, Hamilton Hill WA 6963 T: +61 8 9411 1000 F: +61 8 9411 1150

Final

**Test Certificate Number:** 190050

**Despatched From:** Cockburn Cement, Port Hedland Plant, WA

Sample Code: B0696af
Sample Date: 6/12/2018

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	Result
		AS3972	
3 Day Strength	AS2350.11	N/R	42.6 MPa
7 Day Strength	AS2350.11	Min 35.0 MPa	54.4 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	180 min
Soundness	AS2350.5	Max 5 mm	0 mm
Sulfuric Anhydride content (SO <sub>3</sub> )	AS2350.2	Max 3.5 %	2.6 %
Chloride Ion	BH-TM-0507	Max 0.10 %	0.007 %
Other Properties			
SiO <sub>2</sub>	AS2350.2	N/R	19.2 %
$Al_2O_3$	AS2350.2	N/R	5.3 %
$Fe_2O_3$	AS2350.2	N/R	3.4 %
CaO	AS2350.2	N/R	65.2 %
MgO	AS2350.2	N/R	1.0 %
Na <sub>2</sub> O Equivalent	AS2350.2	N/R	0.4 %
Loss on Ignition	AS2350.2	N/R	2.5 %
Fineness Index	AS2350.8	N/R	340 m²/kg
Normal Consistency	AS2350.3	N/R	28.7 %

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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.  $\mbox{N/R} = \mbox{No Requirement}$ 



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

**Issue Date:** 21/01/2019