

## **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 Type GP General Purpose Cement

Final

ABN 50 006 673 470

	Product Certified: Test Certificate Number:	Type GP General Purpose Cement 190234 Cockburn Cement, Port Hedland Plant, WA		
	Despatched From:			
Sample Code:		B06c7a4		
	Sample Date:	2/04/2019		
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	A\$2350.11	N/R	35.0 MPa
7 Day Strength	AS2350.11	Min 35.0 MPa	48.1 MPa
28 Day Strength	AS2350.11	Min 45.0 MPa	61.4 MPa
Initial Set Time	AS2350.4	Min 45 min	105 min
Final Set Time	AS2350.4	Max 360 min	150 min
Soundness	AS2350.5	Max 5 mm	1 mm
Sulfuric Anhydride content (SO <sub>3</sub> )	AS2350.2	Max 3.5 %	3.2 %
Chloride Ion	BH-TM-0507	Max 0.10 %	0.010 %
Other Properties			
SiO <sub>2</sub>	AS2350.2	N/R	19.1 %
Al <sub>2</sub> O <sub>3</sub>	AS2350.2	N/R	5.2 %
Fe <sub>2</sub> O <sub>3</sub>	AS2350.2	N/R	3.0 %
CaO	AS2350.2	N/R	64.6 %
MgO	AS2350.2	N/R	1.2 %
Na <sub>2</sub> O Equivalent	AS2350.2	N/R	0.4 %
Loss on Ignition	AS2350.2	N/R	2.6 %
Fineness Index	AS2350.8	N/R	340 m²/kg
Normal Consistency	AS2350.3	N/R	27.8 %

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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

Issue Date:

20/05/2019