

## **Test Certificate**

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Final

**Product Certified:** Ground Granulated Blast Furnace Slag

Test Certificate Number: 180697

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

 Sample Code:
 B0645f9

 Sample Date:
 1/06/2018

Nominal Blend	Requirements	Result
Ground Granulated Iron Blast-Furnace Slag		>95 %
Calcium Sulphate		<5 %

Reportable Property	Test Method	Requirements of AS3582.2	Result
Alumina (Al <sub>2</sub> O <sub>3</sub> )	AS2350.2	Max 18.0 %	16.4 %
Total Iron (FeO)	AS2350.2	N/R	0.4 %
Magnesia (MgO)	AS2350.2	Max 15.0 %	10.7 %
Total Alkali (Na₂O Equivalent)	AS2350.2	N/R	0.6 %
Manganese (MnO)	ASTM C114	N/R	0.7 %
Sulfate (as SO <sub>3</sub> ) content	AS3583.8	N/R	0.4 %
Sulfide Sulfur (S)	AS3583.7	Max 1.5 %	0.8 %
Chloride Ion Content	AS3583.13	Max 0.1 %	0.008 %
Loss on Ignition	AS3583.3	N/R	-1.1 %
Insoluble Residue	AS3583.14	N/R	0.6 %
45 μm Residue	AS3583.1	N/R	97 % passing
Relative Density	AS3583.5	N/R	2.91
Relative Water Requirement	AS3583.6	N/R	102 %
Strength Index	AS3583.6	N/R	104 %
Other Properties			
SiO <sub>2</sub>	AS2350.2	N/R	31.4 %
CaO	AS2350.2	N/R	36.9 %
Fineness Index	AS2350.8	N/R	415 m²/kg

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## REMARKS

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

For Relative Water and Strength Index testing the reference control used is Birkenhead GP code B06430a.

This despatch grab sample complies to the requirements of AS3582.2:2016, Ground Granulated Blast Furnace Slag. 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:** 6/08/2018