

# Cement Test Certificate

Final

**Product Certified:** Type SL Shrinkage Limited Cement  
**Test Certificate Number:** 240006  
**Customer:** Morgan Cement, Port Kembla Plant, NSW  
**Sample Code:** B0a22fa  
**Sample Date:** 16/10/2023

Nominal Blend	Requirements	Result
Clinker		>85 %
Ground Granulated Iron Blast-Furnace Slag		Nil
Mineral Addition	Max 7.5 %	<7.5 %
Calcium Sulphate		4-8 %
Minor Additional Constituents	Max 5 %	<5 %

Reportable Property	Test Method	Requirements of AS3972	Result
3 Day Strength	AS/NZS2350.11	N/R	39.5 MPa
7 Day Strength	AS/NZS2350.11	Min 35.0 MPa	51.2 MPa
28 Day Strength	AS/NZS2350.11	Min 45.0 MPa	64.1 MPa
Initial Set Time	AS/NZS2350.4	Min 45 min	135 min
Final Set Time	AS/NZS2350.4	Max 600 min	210 min
Soundness	AS/NZS2350.5	Max 5 mm	0 mm
Sulfuric Anhydride content (SO <sub>3</sub> )	AS2350.2	Max 3.5 %	2.9 %
Chloride Ion	BH-TM-0507	Max 0.10 %	0.021 %
Shrinkage 28 Days	AS2350.13	Max 750 µstrain	560 µstrain

### Other Properties

SiO <sub>2</sub>	AS2350.2	N/R	19.2 %
Al <sub>2</sub> O <sub>3</sub>	AS2350.2	N/R	5.1 %
Fe <sub>2</sub> O <sub>3</sub>	AS2350.2	N/R	3.1 %
CaO	AS2350.2	N/R	63.7 %
MgO	AS2350.2	N/R	1.6 %
Na <sub>2</sub> O Equivalent	AS2350.2	N/R	0.5 %
Loss on Ignition	AS2350.2	N/R	3.1 %
Fineness Index	AS/NZS2350.8	N/R	390 m <sup>2</sup> /kg
Normal Consistency	AS/NZS2350.3	N/R	27.6 %

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### REMARKS

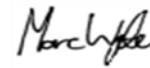
These test result apply specifically to the sample as received at the Adbri Cement Birkenhead Laboratory (Accreditation number: 252), 62 Elder Rd Birkenhead SA 5015.

This despatch grab sample complies to the requirements of AS3972:2010, Type SL Cement.

N/R = No Requirement



Accredited for compliance with ISO/IEC  
17025 - Testing.



Approved Signatory

M. Wythe

Issue Date: 03/01/2024