

## FINAL REPORT

CERTIFICATE No.: 25479



Boral Cement Limited

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**TEST CERTIFICATE OF:** Tarong Daily Despatch Grade 1 Fly Ash  
**PRODUCED AT:** Boral Cement Limited Tarong  
**TESTED AT:** Berrima Works Laboratory  
**SAMPLE IDENTIFICATION:** TDDFA2304953  
**DATE DESPATCHED:** 9/11/2023

PROPERTY	REQUIREMENTS OF AS 3582.1 - Grade 1	RESULT
Fineness (AS 3583.1)	≥ 75 %	90 %
LOI (AS 3583.3)	≤ 4.0 %	2.4 %
Moisture (AS 3583.2)	≤ 0.5 %	0.2 %
SO <sub>3</sub> (AS 2350.2)	≤ 3.0 %	0.1 %
SiO <sub>2</sub> (AS 2350.2)		74.6 %
Al <sub>2</sub> O <sub>3</sub> (AS 2350.2)		19.9 %
Fe <sub>2</sub> O <sub>3</sub> (AS 2350.2)		1.3 %
Chemical Composition (AS 2350.2)	≥ 70 %	96 %
Total Alkali (AS 2350.2)		0.4 %
Cl (AS 2350.2)	≤ 0.1 %	< 0.01 %

### REMARKS

Sampling not carried out by laboratory. Samples tested as received.



Accredited for compliance with ISO/IEC 17025 - Testing

Marc Smith  
Technical Services Manager

**TEST REPORT – FLYASH****CLIENT:** BORAL CEMENT – (TECHNICAL)**FILE NO:** 50/23**ADDRESS:** 39 Delhi Road, North Ryde, NSW 2113**REQUEST NO:** 109329**SAMPLE IDENTIFICATION:** TDDFA2304953**LAB SAMPLE NO:** 295015**SOURCE OF SAMPLE:** Boral Cement - Berrima**DATE SAMPLED:** 09/11/2023**DATE RECEIVED:** 28/11/2023**IDENTIFICATION OF CEMENT USED:** Boral Cement SL Berrima Ref. 2022**TEST METHOD:** AS 3583: Methods of test for supplementary cementitious materials for use with Portland cement

PROPERTY	DATE TESTED	RESULT	TEST METHOD
Relative density	06/12/2023	2.10	AS 3583.5
Relative water requirement	07/12/2023	101%	AS 3583.6
Relative strength 7 days (accelerated)	14/12/2023	98%	AS 3583.6

**Note:**

- Sample supplied by the client and tested as received.

Marc Smith, Parisa Sowti, Violeta Paicu, Mat. File, File

Approved Signatory

Sam El-Hamawi

Date

18/12/23

Serial No.

CEM109329.SE.1

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Test results in this Test Report relate only to the samples tested.

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**TEST REPORT**

CLIENT: BORAL CEMENT – TECHNICAL  
39 Delhi Road, North Ryde, NSW 2113.

FILE No.:50/23

PROJECT: Testing of Fly ash samples for R.W, R.S, Density and Available Alkali.

REQUEST No.: 109329

**TEST PROCEDURE:**

AS 3583.12 – 1991 – Determination of Available Alkali

Laboratory Sample No.: 295015  
Date Sampled: 09/11/2023  
Date Received: 28/11/2023  
Date Tested: 02/01/2024  
Sample Description: TDDFA2304953

Field No.: 1

**TEST RESULTS:**

Sodium as Na<sub>2</sub>O (%) 0.01  
Potassium as K<sub>2</sub>O (%) 0.09  
Available Alkali (%) 0.1

Available Alkali (%) = Na<sub>2</sub>O (%) + (0.658 x K<sub>2</sub>O %)

**Note:**

- Sample was provided by the Client and tested as received.

Marc Smith, Parisa Sowti, Violeta Paicu, Stephanie Koehier, Mat.File, File.



Approved Signatory

Nanthini Selvadurai

Date 03 - 01 - 24 Serial No. CHEM109329.NS.1

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