



**Boral Construction Materials  
Materials Technical Services**

Unit 4, 3-5 Gibbon Road  
Baulkham Hills NSW 2153 Australia  
PO Box 400, Winston Hills NSW 2153

T: +61 (02) 9624 9900  
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www.boral.com.au

**TEST REPORT**

**CLIENT:** XYPEX AUSTRALIA  
**Address:** 190 Toongabbie Road Girraween, NSW 2145

**FILE NO:** 256/18

**LAB SAMPLE NO:** 207505

**REQUEST No:** 79429

**SAMPLE IDENTIFICATION:** Ecotec Silica Fume – Monthly Sample for July 2018

**IDENTIFICATION OF CEMENT USED:** Boral Cement SL Berrima Ref. No. 203-608-001-Aug 2016

**TEST METHOD:** AS3583: Methods of test for supplementary cementitious materials for use with Portland cement

PROPERTY	DATE TESTED	RESULT	TEST METHOD
Relative density	25/07/2018	2.21	AS 3583.5
Relative water requirement	26/07/2018	112%	AS 3583.6
Relative strength 7days (accelerated)	02/08/2018	114%	AS 3583.6
Relative strength 28days (standard)	23/08/2018	95%	AS 3583.6

Shaun Guthridge, Mat. File, File



Approved Signatory *Julius Alvaro* **Julius Alvaro**  
Date 24/08/18 Serial No. 17 1 5 9 8

Accredited for compliance with ISO/IEC 17025

NATA Accredited Laboratory

Number: 547



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**TEST REPORT**

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**FILE NO:** 256/18

**ADDRESS:** 190 Toongabbie Road, Girraween, NSW 2145

**REQUEST NO:** 79429

**LAB SAMPLE NO:** 207505

**SOURCE OF SAMPLE:** Unknown

**SAMPLE IDENTIFICATION:** Ecotec Silica Fume – Monthly Sample for July 2018

**IDENTIFICATION OF CEMENT USED:** Boral Cement SL Berrima – Ref. 2016

**TEST METHOD:** ASTM C-1240 Use of Silica Fume as a Mineral Admixture in Hydraulic-Cement Concrete, Mortar & Grout

**Accelerated Pozzolanic Strength Activity Index With Portland Cement - ASTM C1240**

**Date Cast:** 16-08-2018

**Date Crushed:** 23-08-2018 @ 7 Days

<b><u>Results:</u></b>	<b>Accelerated Pozzolanic Strength Activity Index:</b>	<b>106% @ 7 Days</b>
	<b>Control Mix Strength:</b>	<b>32.7 MPa</b>
	<b>Test Mix Strength:</b>	<b>34.7 MPa</b>

**Note:**

Test mix used 242 mls of water and 1.6 grams of Dry Water Reducer (1000 NT from BASF) to obtain a flow of 101 %.

Shaun Guthridge, Mat. File, File



Approved Signatory

**Julius Alvaro**

Date 24/08/18

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**TEST REPORT**

**CLIENT:** XYPEX AUSTRALIA  
Address: 190 Toongabbie Road Girraween, NSW 2145

**FILE NO:** 256/18

**REQUEST NO:** 79429

**LAB. SAMPLE NO:** 207505

**SOURCE OF SAMPLE:** Unknown

**SAMPLE IDENTIFICATION:** Ecotec Silica Fume – Monthly Sample for July 2018

**TEST METHOD:** AS3583: Methods of test for supplementary cementitious materials for use with Portland Cement

PROPERTY	DATE TESTED	RESULT	TEST METHOD	AS3582 SPEC.
Moisture content	21/08/2018	0.7%	AS 3583.2	Max. 3.0%
Loss on ignition	21/08/2018	1.8%	AS 3583.3	Max. 6.0%
Relative Density	25/07/2018	2.21	AS 3583.5	

Sample submitted by the client.

Shaun Guthridge, Mat. File, File



Approved Signatory Julius C. Alvaro **Julius Alvaro**  
Date 24/08/18 Serial No. 171600

Accredited for compliance with ISO/IEC 17025

NATA Accredited Laboratory

Number: 547



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**TEST REPORT**

**CLIENT:** XYPEX AUSTRALIA

**FILE NO:** 256/18

**ADDRESS:** 190 Toongabbie Road, Girraween, NSW 2145

**REQUEST NO:** 79429

**LAB. SAMPLE NO:** 207505

**SOURCE OF SAMPLE:** Unknown

**SAMPLE IDENTIFICATION:** Ecotec Silica Fume – Monthly Sample for July 2018

**Bulk Density - AS3582.3 – Clause 7.1.7**

**Result:** 698 Kg/m<sup>3</sup>

Shaun Guthridge, Mat. File, File

  
Julius Alvaro  
24/08/2018



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**TEST REPORT**

CLIENT: XYPEX AUSTRALIA  
190 Toongabbie Road, Girraween NSW 2145.

FILE No.:256/18

PROJECT: Testing of Silica Fume sample for July' 2018

REQUEST No.: 79429

**TEST PROCEDURE:** AS 3583.13 – Determination of Chloride Ion content  
AS 3583.8 – Determination of Sulfuric Anhydride content

Laboratory Sample No.: 207505  
Date Sampled: July'2018  
Date Received: 25/07/18  
Sample Description: Ecotec Silca Fume  
monthly sample for July'  
2018.  
Field No.: 1

**TEST RESULTS:**

Chloride as Cl<sup>-</sup> (%) 0.015  
Sulphate as SO<sub>3</sub> (%) 0.8

Samples submitted by the Client.

S.Guthridge, Mat. File, File.



Approved Signatory N.S. Nanthini Selvadurai

Date 31-08-18 Serial No. 171601



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**TEST REPORT**

CLIENT: XYPEX AUSTRALIA  
190 Toongabbie Road, Girraween, NSW 2145.

FILE No.:256/18

PROJECT: Testing of Silica Fume sample for July .2018.

REQUEST No.: 79429

**TEST PROCEDURE:**

AS 3583.12 – 1991 – Determination of Available Alkali

Laboratory Sample No.: 207505  
Date Sampled: July' 2018  
Date Received: 25/07/18  
Sample Description: Ecotec Silca Fume –  
Monthly Sample for July  
2018.  
Field No.: 1

**TEST RESULTS:**

Sodium as Na<sub>2</sub>O (%) 0.02  
Potassium as K<sub>2</sub>O (%) 0.08  
Available Alkali (%) 0.1

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

Samples submitted by the Client.

S.Guthridge, Mat. File, File.



Approved Signatory

Nanthini Selvadurai

Date 31-08-18

Serial No.

171602

NATA Accredited Laboratory



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**TEST REPORT**

CLIENT: XYPEX AUSTRALIA  
190, Toongabbie Road Girraween NSW 2145.

FILE No.: 256/18

PROJECT: Testing of Silica fume sample for July' 2018.

REQUEST No.: 79429

**TEST PROCEDURE: Boral Chemical Method 2 – Determination of metal oxides by  
Lithium Meta Borate Fusion and analysed using ICP**

Laboratory Sample No.: 207505  
Date Sampled: July' 2018.  
Date Received: 25/07/18  
Sample Description: Ecotec Silica Fume  
July 2018.  
Field No.: 1

**TEST RESULTS**

Silicon as SiO<sub>2</sub> (%) 95.2

Sample submitted by the Client.



Nanthini S  
Analytical Chemist  
30<sup>th</sup> August 2018.  
S.Guthridge, Mat. File, File.