



**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  
F: +61 (02) 9624 9999

www.boral.com.au

**TEST REPORT**

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

FILE No.:256/18

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

REQUEST No.: 79646

**TEST PROCEDURE:**

AS 3583.12 – 1991 – Determination of Available Alkali

Laboratory Sample No.: 208067  
Date Sampled: August' 2018  
Date Received: 07/08/18  
Sample Description: Ecotec Silica Fume –  
Monthly Sample for  
August 2018.  
Field No.: 1

**TEST RESULTS:**

Sodium as Na<sub>2</sub>O (%) 0.12  
Potassium as K<sub>2</sub>O (%) 0.08  
Available Alkali (%) 0.2

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 21-09-18 Serial No. 172403



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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 August' 2018

REQUEST No.: 79646

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

Laboratory Sample No.: 208067  
Date Sampled: August'2018  
Date Received: 07/08/18  
Sample Description: Ecotec Silica Fume  
monthly sample for  
August' 2018.  
Field No.: 1

**TEST RESULTS:**

Chloride as Cl<sup>-</sup> (%) 0.003  
Sulphate as SO<sub>3</sub> (%) 0.9

Samples submitted by the Client.

S.Guthridge, Mat. File, File.



Approved Signatory NOS Nanthini Selvadurai  
Date 21-09-18 Serial No. 172404



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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 August' 2018.

REQUEST No.: 79646

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

Laboratory Sample No.: 208067  
Date Sampled: August' 2018.  
Date Received: 07/08/18  
Sample Description: Ecotec Silica Fume  
August 2018.  
Field No.: 1

**TEST RESULTS**

Silicon as SiO<sub>2</sub> (%) 94.2

Sample submitted by the Client.

Nanthini S  
Analytical Chemist  
11<sup>th</sup> September 2018.  
S.Guthridge, Mat. File, File.



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**TEST REPORT**

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

**FILE NO:** 256/18

**LAB SAMPLE NO:** 208067

**REQUEST No:** 79646

**SAMPLE IDENTIFICATION:** Ecotec Silica Fume – Monthly Sample for August 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	07/08/2018	2.21	AS 3583.5
Relative water requirement	09/08/2018	112%	AS 3583.6
Relative strength 7days (accelerated)	16/08/2018	107%	AS 3583.6
Relative strength 28days (standard)	06/09/2018	93%	AS 3583.6

Shaun Guthridge, Mat. File, File



Approved Signatory

*Julius Alvaro* Julius Alvaro

Date 27/09/18

Serial No.

172405

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:** 79646

**LAB SAMPLE NO:** 208067

**SOURCE OF SAMPLE:** Unknown

**SAMPLE IDENTIFICATION:** Ecotec Silica Fume – Monthly Sample for August 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:** 20-09-2018

**Date Crushed:** 27-09-2018 @ 7 Days

<b>Results:</b>	<b>Accelerated Pozzolanic Strength Activity Index:</b>	<b>121% @ 7 Days</b>
	<b>Control Mix Strength:</b>	<b>28.6 MPa</b>
	<b>Test Mix Strength:</b>	<b>34.5 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 100 %.

Shaun Guthridge, Mat. File, File



Approved Signatory

*Julius C. Alvaro*

Julius Alvaro

Date 27/09/18

Serial No.

172406

Accredited for compliance with ISO/IEC 17025

NATA Accredited Laboratory

Number: 547



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**TEST REPORT**

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

**FILE NO:** 256/18

**REQUEST NO:** 79646

**LAB. SAMPLE NO:** 208067

**SOURCE OF SAMPLE:** Unknown

**SAMPLE IDENTIFICATION:** Ecotec Silica Fume – Monthly Sample for August 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	11/09/2018	0.7%	AS 3583.2	Max. 3.0%
Loss on ignition	11/09/2018	1.7%	AS 3583.3	Max. 6.0%
Relative Density	07/08/2018	2.21	AS 3583.5	

Sample submitted by the client.

Shaun Guthridge, Mat. File, File



ACCREDITED FOR  
TECHNICAL  
COMPETENCE

Approved Signatory  Julius Alvaro

Date 27/09/18 Serial No. 172407

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:** 79646

**LAB. SAMPLE NO:** 208067

**SOURCE OF SAMPLE:** Unknown

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

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

**Result:** 685 Kg/m<sup>3</sup>

Shaun Guthridge, Mat. File, File

A handwritten signature in black ink, appearing to read "Julius Alvaro".  
Julius Alvaro  
27/09/2018