



**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 2 9624 9900  
F: +61 2 9624 9999  
www.boral.com.au

### TEST REPORT

**CLIENT:** XYPEX AUSTRALIA  
Address: 9/177 Arthur Street Homebush West NSW 2140

**FILE NO:** 256/11

**SOURCE OF SAMPLE:** Unknown

**LAB SAMPLE NO:** 116945

**REQUEST NO.:** 43479

**SAMPLE IDENTIFICATION:** Ecotec Silica Fume – Monthly Sample for June. 2011

**IDENTIFICATION OF CEMENT USED:** Boral Cement SL Berrima – ID # 64514

**TEST METHOD:** ASTM C-1240-04 Use of Silica Fume as a Mineral Admixture in Hydraulic-Cement Concrete, Mortar & Grout

#### Accelerated Pozzolanic Strength Activity Index With Portland Cement - ASTM C1240-04

**Date Cast:** 22-06-11

**Date Crushed:** 29-06-11 @ 7 Days

<b>Results:</b>	<b>Accelerated Pozzolanic Strength Activity Index:</b>	125% @ 7 Days
	<b>Control Mix Strength:</b>	40.3 MPa
	<b>Test Mix Strength:</b>	50.3 MPa

**Note:**

Test mix used 242 mls of water and 5.6 grams of Water Reducer (Rheobuild 1000 from BASF) to obtain a flow of 111%.

Daniel Rowley, Mark Hanlon, Mat. File, File

Muans Abdulnebe



ACCREDITED FOR  
TECHNICAL  
COMPETENCE

Approved Signatory \_\_\_\_\_

Date 6/07/11

Serial No. \_\_\_\_\_

97727

*This document is issued in accordance with the NATA's accreditation requirements.  
Accredited for compliance with ISO/IEC 17025*

NATA Accredited Laboratory  
Number: 547



**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 2 9624 9900  
F: +61 2 9624 9999  
www.boral.com.au

**TEST REPORT**

**CLIENT: XYPEX AUSTRALIA**  
Address: 9/177 Arthur Street Homebush West NSW 2140

**FILE NO: 256/11**

**REQUEST NO.: 43479**

**LAB. SAMPLE NO: 116945**

**SOURCE OF SAMPLE: Unknown**

**SAMPLE IDENTIFICATION: Ecotec Silica Fume –Monthly Sample for June 2011**

**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	22-06-11	0.7%	AS3583.2	Max. 3.0%
Loss on ignition	22-06-11	2.1 %	AS3583.3	Max. 6.0%
Relative Density	22-06-11	2.29	AS3583.5	

Sample submitted by the client.

Daniel Rowley, Mark Hanlon, Mat. File, File



ACCREDITED FOR  
TECHNICAL  
COMPETENCE

Approved Signatory \_\_\_\_\_

Date 6/07/11 Serial No. 97728

**Muans Abdulnebe**

*This document is issued in accordance with the NATA's accreditation requirements.  
Accredited for compliance with ISO/IEC 17025*

NATA Accredited Laboratory  
Number: 547



**Boral Construction Materials**

**Materials Technical Services**

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

T: +61 2 9624 9900  
F: +61 2 9624 9999

[www.boral.com.au](http://www.boral.com.au)

**TEST REPORT**

**CLIENT: XYPEX AUSTRALIA**

Address: 9/177 Arthur Street Homebush West NSW 2140

**FILE NO: 256/11**

**REQUEST NO.: 43479**

**LAB. SAMPLE NO: 116945**

**SOURCE OF SAMPLE: Unknown**

**SAMPLE IDENTIFICATION: Ecotec Silica Fume –Monthly Sample for June.2011**

**Bulk Density - AS3582.3.6.5**

**Result: 601 Kg/m<sup>3</sup>**

BORAL



Oscar Perez  
04-07-2011

Daniel Rowley, Mark Hanlon, Mat. File, File



MATERIALS TECHNICAL SERVICES  
BORAL RESOURCES (NSW) PTY LTD  
ABN 51 000 756 507  
Unit 4, 3-5 Gibbon Road  
Baulkham Hills NSW 2153 Australia  
PO Box 400, Winston Hills NSW 2153  
Telephone 61 2 9624 9900  
Facsimile 61 2 9624 9999

**Test Report**

CLIENT: XYPEX AUSTRALIA  
9/177 Arthur Street, Homebush west, NSW 2140.

FILE No.:256/11

PROJECT: Testing of Silica Fume Sample.

REQUEST No.: 43479

**TEST PROCEDURE:**

AS3583.12 – 1991 – Determination of Available Alkali

Laboratory Sample No.: 116945  
Date Sampled: Unknown  
Date Received: 06/06/11  
Sample Description: Ecotec Silica Fume -  
Monthly June'11.

Field No.: 1

**TEST RESULTS**

Sodium as Na<sub>2</sub>O (%) 0.28  
Potassium as K<sub>2</sub>O (%) 0.48  
Available Alkali (%) 0.6

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

Samples submitted by the Client.

D. Rowley, G.Kao, File



Approved Signatory Nanthini Selvadurai Nanthini Selvadurai  
Date 06-07-11 Serial No. 97729



**Boral Construction Materials**

**Materials Technical Services**

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

T: +61 2 9624 9900  
F: +61 2 9624 9999

www.boral.com.au

**Test Report**

CLIENT: XYPEX AUSTRALIA  
9/177 Arthur Street, Homebush west, NSW 2140.

FILE No.:256/11

PROJECT: Testing of Silica Fume Sample.

REQUEST No.: 43479

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

Laboratory Sample No.: 116945  
Date Sampled: Unknown  
Date Received: 06/06/11  
Sample Description: Ecotec Silica  
Fume - Monthly  
June'11.

Field No.: 1

**TEST RESULTS**

Silicon as SiO<sub>2</sub> (%) 91.7

Sample submitted by the client.

Nanthini Selvadurai  
Analytical Chemist  
6<sup>th</sup> July 2011  
D. Rowley, G.Kao, File



MATERIALS TECHNICAL SERVICES  
BORAL RESOURCES (NSW) PTY LTD  
ABN 51 000 756 507

Unit 4, 3-5 Gibbon Road  
Baulkham Hills NSW 2153 Australia  
PO Box 400, Winston Hills NSW 2153  
Telephone 61 2 9624 9900  
Facsimile 61 2 9624 9999

Test Report

CLIENT: XYPEX AUSTRALIA  
9/177 Arthur Street, Homebush west, NSW 2140.

FILE No.:256/11

PROJECT: Testing of Silica Fume Sample.

REQUEST No.: 43479

TEST PROCEDURE: AS3583.13 – Determination of Chloride Ion Content  
AS3583.8 – Determination of Sulfuric Anhydride content

Laboratory Sample No.: 116945  
Date Sampled: Unknown  
Date Received: 06/06/11  
Sample Description: Ecotec Silica Fume -  
Monthly June '11  
Field No.: 1

TEST RESULTS

Chloride as Cl<sup>-</sup> (%) 0.186  
Sulphate as SO<sub>3</sub> (%) 0.8

Samples submitted by the Client.

D. Rowley, G.Kao, File



Approved Signatory Nanthini Selvadurai  
Date 06-07-11 Serial No. 97730

This document is issued in accordance with NATA's accreditation requirements.  
Accredited for compliance with ISO/IEC 17025

NATA Accredited Laboratory  
Number: 9968