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21st June, 2005

Glen Rodgers
Director
Third Ecology
82a Hope Street
GEELONG WEST VIC 3218

Facsimile: 5229 8361 ✓

RECEIVED
21/6/05

Dear Mr Rodger,

RE: WARRINGTON FIRE RESEARCH TEST REPORT NO. WFRA 499199 DATED 31/05/2005 SEALECTION 500 INSULATION MATERIAL

We have received the above "Test Report" and Warrington letter to Third Ecology dated 2nd June, 2005 and comment as follows:

BCA 2005 Volume 1

The "Test Report" indicates that the requirements of Clause C1.10 Fire Hazard Properties and Specification C1.10 Fire Hazard Properties general of the Building Code of Australia 2005 Volume 1 would be satisfied in terms of "Spread of Flame Index" and "Smoke Developed Index", for materials used in Class 2 to 9 buildings if used in accordance with Clauses 2, 3, 4, 8 and 9 of Specification C1.10.

The above comments are in relation to the "Deemed to Satisfy" Provisions of the BCA.

BCA 2005 Volume 2

The Fire Hazard Properties requirements for Class 1 and 10 buildings are contained at Clause 3.7.1.9 of the Building Code of Australia 2005 Volume 2 and apply to sarking type materials and flexible ductwork used to transfer products initiating from a heat source that contains a flame.

We understand the Sealection 500 Insulation Material would not be a "sarking type material" and that the material would not form part of flexible ductwork, therefore the requirements at Clause 3.7.1.9 would not be applicable.

We enclose the following BCA 2005 extracts for your reference:

BCA 2005 Volume 1

- Part A0 Application
- A0.3 BCA Structure
- A0.5 Meeting the performance requirements
- A0.9 Assessment methods

Building Surveying, Town Planning and Development Consultants

Phone: (03) 5229 5133 Facsimile: (03) 5229 5144 Mobile: 0419 172 196 Email dcurtain@iprimus.com.au

- C1.10 Fire Hazard Properties
- Specification C1.10 Fire Hazard Properties General
- Specification C1.10a Fire Hazard Properties – Floors, walls and ceilings
- A2.4 Fire Hazard Properties
- Specification A2.4 Fire Hazard Properties
- Part A1 Interpretation

BCA 2005 Volume 2

- Part 1.0 Application
- 1.0.3 BCA Structure
- 1.0.5 Meeting the Performance Requirements
- 1.0.9 Assessment Methods
- Part 3.7.1 Fire Separation
- 3.7.1.9 Fire Hazard Properties
- Part 1.1 Interpretation

Yours sincerely,

DAVID CURTAIN CONSULTING PTY LTD

A handwritten signature in black ink, appearing to read 'David Curtain', with a stylized flourish at the end.

DAVID CURTAIN
DIRECTOR

Enc.

WFRA Test Report No.

WFRA 499199

**Test Sponsor**

Third Ecology Pty Ltd
82a Hope Street
Geelong West
Victoria 3218

AS/NZS 1530.3-1999: Test On Sealection 500 Insulation Material**Objective**

To determine the performance of the material samples as described in this report when subjected to the test conditions stated in the test standard referenced below

Product

Sealection 500
A semi-rigid spray applied
polyurethane foam

Test Reference

WFRA 499199

Date of Test

31 May 2005

Test Method

AS/NZS 1530.3:1999
Part 3: Simultaneous determination of
ignitability, flame propagation, heat
release and smoke release

Supplementary Standards

Nil

Product Description

The specimens tested consisted of 600mm by 450mm by 80.0 mm thick sections of Sealection 500, a two component open cell spray-applied semi-rigid polyurethane foam insulation material having a nominal density of 7.6 kg/m³. These Sealection 500 material test specimens were cream in colour and were supplied to WFRA for testing by the sponsor of the test. WFRA personnel were not involved with the selection of these test specimens. A total of nine specimens were tested and these specimens were conditioned to a constant mass, at a temperature of 20 deg C and a relative humidity of 65%, immediately prior to conducting these tests

TESTING AUTHORITY**Address**

Warrington Fire Research (Aust) Pty Ltd
PO Box 4282 DANDENONG SOUTH VIC 3164
Unit 2, 409-411 Hammond Road DANDENONG VIC 3175

Phone / Fax

61 (0)3 9767 1000 / 61 (0)3 9767 1001

ABN

81 050 241 524

Email / Home Pagewww.wfra.com.au/**Authorisation**

Prepared By:

Robert Lewins
R.R. Lewins

Reviewed By:

P. J. England
P. J. England

Test Results – WFRA 499199

	Mean		Standard Error
Ignition Time	2.46	minutes	0.25
Flame Propagation Time	Nil	seconds	Nil
Heat Release Integral	37.0	kJ/m ²	1.4
Smoke Release, log d For 4 specimens that ignited	-0.1659		0.0637
Smoke Release, log d For 5 specimens that did not ignite	-0.5879		0.0733
Optical Density, d	0.7042	per metre	
	Number of specimens ignited		Four
	Number of specimens tested		Nine
Regulatory Indices			
Ignitability Index	18		Range 0 to 20
Spread of Flame Index	0		Range 0 to 10
Heat Evolved Index	1		Range 0 to 10
Smoke Developed Index	7		Range 0 to 10

Comments

Each specimen had an unattached backing of 4.5mm thick fibre reinforced cement board. Each specimen was restrained on the exposed face by a layer of welded wire square mesh (12mmx12mmx0.8) and the assembly clamped along all sides. These results only apply to the specimens mounted as described in this report. Ignition is initiated by a pilot flame that is held near, but does not touch the specimen. A material that does not ignite during the standard test may ignite if contacted with a pilot flame during the test.

Conditions/Validity

This product has been tested in accordance with AS/NZS 1530.3-1999 and this report should be read in conjunction with that standard. This test report does not provide an endorsement by Warrington Fire Research (Aust) Pty Ltd of the performance of the actual products supplied. The tests were performed at AWTA laboratories under the technical control of Warrington Fire Research (Aust) Pty. Ltd. The results of these tests may be used to directly assess fire hazard, but it should be recognised that a single test method will not provide a full assessment of fire hazard under all fire conditions.

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