



Façade Test Day

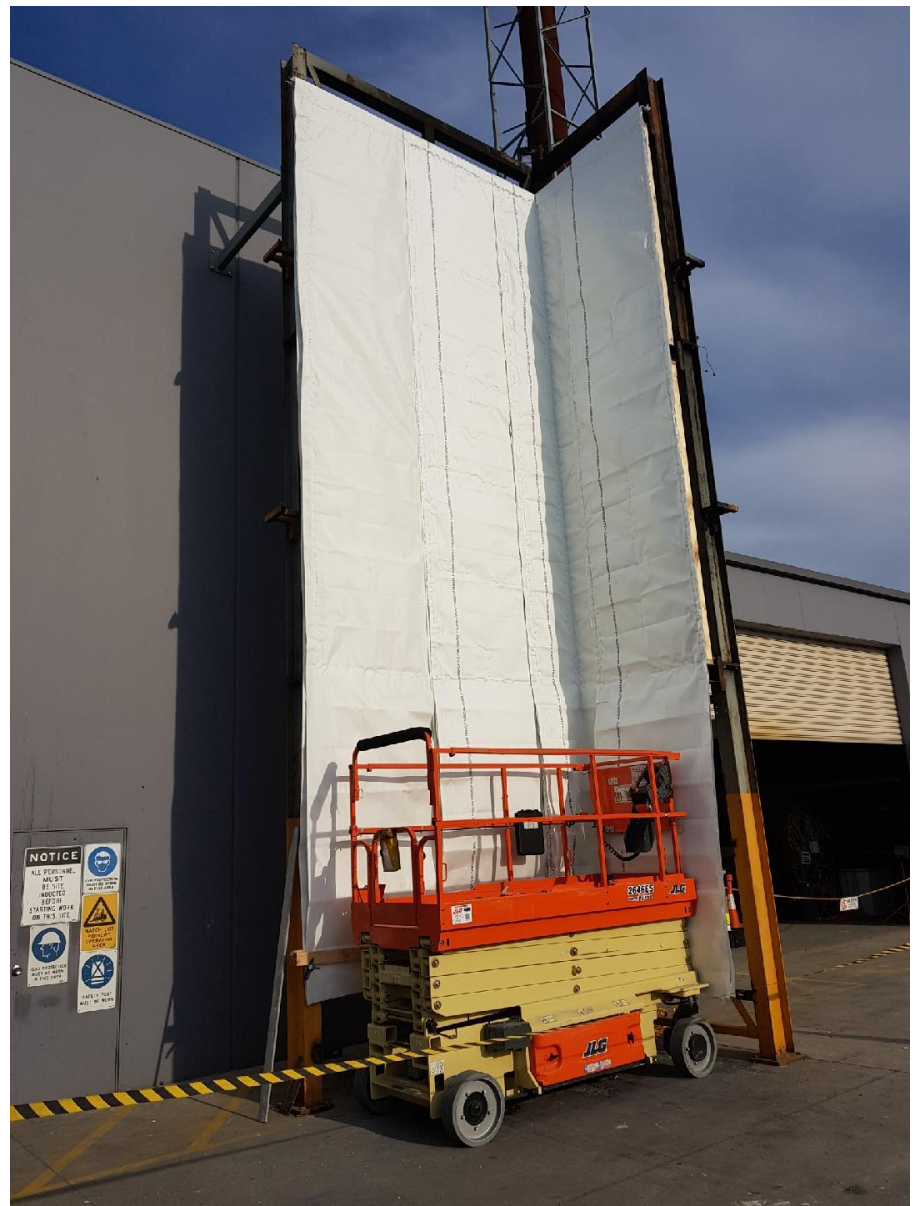
Trevor Kempster National Sales Manager

Innovative Fire Protection

Hosted by NSW Chapter of the Society of Fire Safety (SFS)



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PASSIVE FIRE PROTECTION



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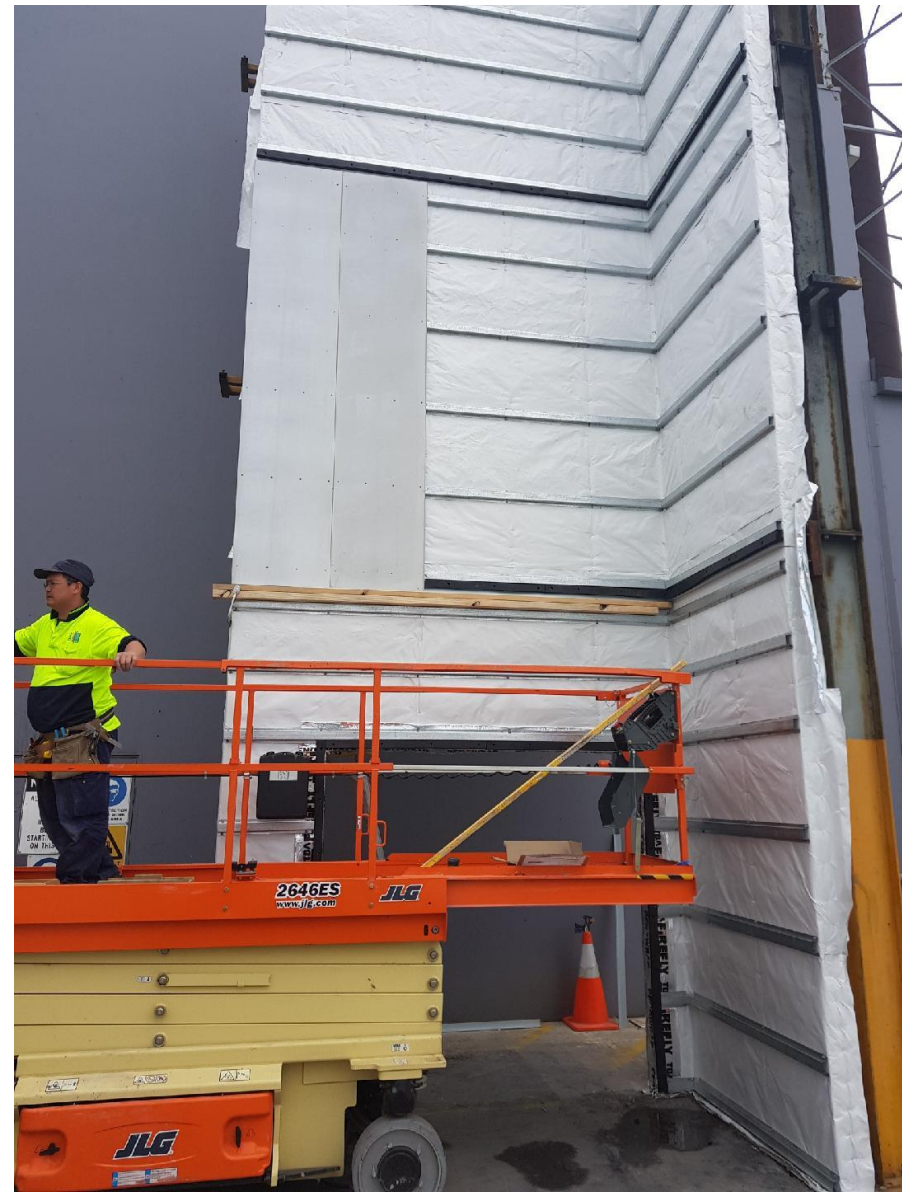
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INEX > **BOARDS**™

ANY BUILDING • ANY SURFACE • ANYWHERE

TBA FIREFLY
PASSIVE FIRE PROTECTION

2016 NCC & The Timber Standard

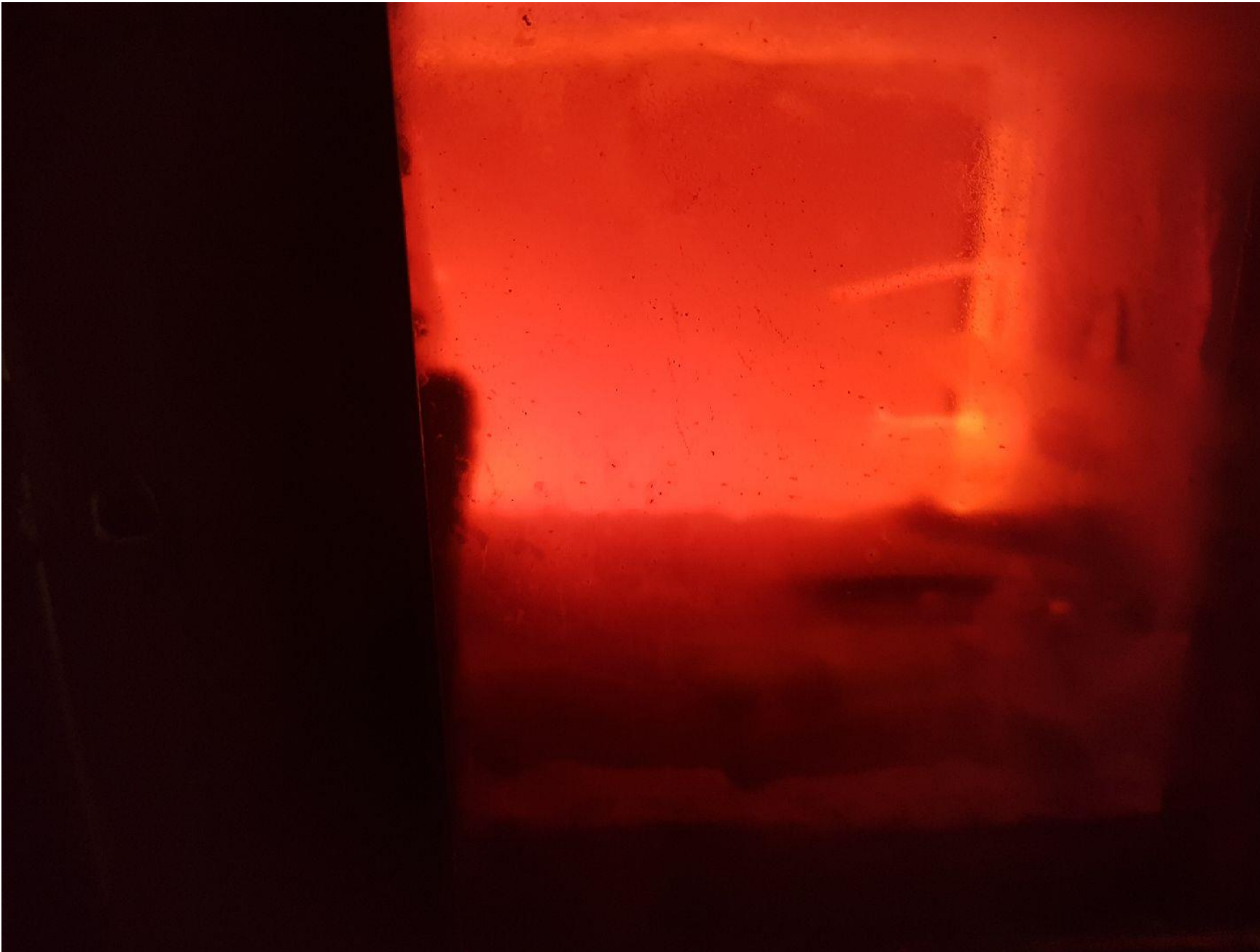
Incipient Spread of Flame Requirements when Tested To AS1530.4-2014

- AS1530.4-2014 Heavy Timber RISF 300 Deg C @ 30 mins
- AS1530.4-2014 Lightweight Timber RISF 250 Deg C @ 45 mins
- The TBA Firefly/Brickworks Wall System 205 Deg C @ 45 mins
- The TBA Firefly/Brickworks Wall System hit 300 Deg C @ 57 mins
- FRL-/120/120 (Pilot)





TBA FIREFLY
PASSIVE FIRE PROTECTION



TBA FIREFLY
PASSIVE FIRE PROTECTION





Exova
Warringtonfire



Witnessed by 99 Fire Engineers and other Building Professionals



TBA FIREFLY

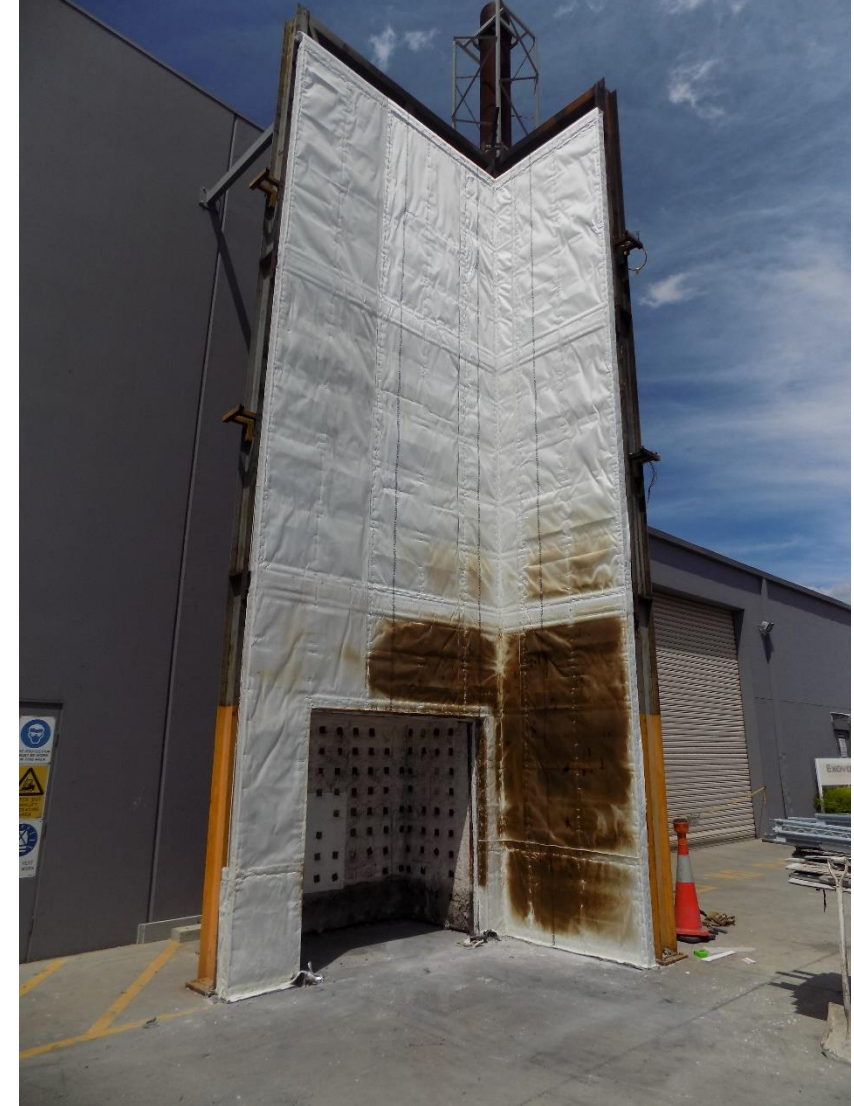
PASSIVE FIRE PROTECTION



TBA Firefly Non-combustible Sarking



TBA Firefly 6mm Vulcan Fire Barrier



TBA FIREFLY

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100g of Debris

The Following Extracts are taken from the AS5113 Test Standard all images remain the property of Standards Australia

AS 5113:2016

Australian Standard®

Fire propagation testing and classification of external walls of buildings

AS 5113:2016

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PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee FP-018, Fire Safety.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this Standard is to provide procedures for the fire propagation testing and classification of external walls of buildings according to their tendency to limit the spread of fire via the external wall and between adjacent buildings.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is only for information and guidance.

6 REPORTING THE CLASSIFICATION

A report or certificate shall be prepared independently to the fire test report(s). It shall contain the following information:

- (a) The name and address of the testing authority(ies).
- (b) The name and address of the applicant.
- (c) The date of the test(s).
- (d) The unique reference number(s) of the specific test(s).
- (e) The designation of the test methods performed.
- (f) The name of the manufacturer (if known) of the test specimen and of the products and components used in the construction, together with identification marks and trade names.
- (g) The construction details of the specimen, including description and drawings and principal details of the components such as sheeting rails, fixings, cavities, insulation and membranes, coatings, flashings or joints.
- (h) The relevant properties of materials or components that have a bearing on the fire performance of the test specimen. Where it is impractical to measure some of these properties, this shall be reported.
- (i) The method of assembly and installation of the test specimen.
- (j) Details of pre-test conditioning of the test specimen.
- (k) A statement concerning the laboratory's involvement in the selection of the test specimen.
- (l) For asymmetrical elements, the direction in which the specimen was tested and the reason for this choice.
- (m) Information concerning the location of all thermocouples specified including drawings that clearly illustrate the positions of the thermocouples and identify them relative to the data provided.
- (n) The ambient temperature at the commencement of the test.
- (o) The wind speed and direction at the commencement of the test.
- (p) Table of results as shown in Table 3.

TABLE 3
TEST RESULTS

Classification indices	Test method	Classification criteria	Related classification measure	Result in test	Pass/Fail
EW	ISO 13785-2	5.4.3(a) T_{w4m}	$\leq 600^{\circ}\text{C}$		
		5.4.3(b) $T_{cavity4m}$	$\leq 250^{\circ}\text{C}$		
		5.4.3(b) $T_{layer4m}$	$\leq 250^{\circ}\text{C}$		
		5.4.3(c) $T_{Unexposed\ side\ 0.9m}$	$\leq 180^{\circ}\text{C}$		
		5.4.3(d) flaming	No flaming		
		5.4.3(d) openings	No openings		
		5.4.3(e) flame spread	No spread beyond specimen		
		5.4.3(f) debris flaming	$\leq 20\text{ s}$		
		5.4.3(g) debris mass	$\leq 2\text{ kg}$		
EW	BS 8414-1 or BS 8414-2	5.4.5(a) T_{w5m}	$\leq 600^{\circ}\text{C}$		
		5.4.5(b) $T_{cavity5m}$	$\leq 250^{\circ}\text{C}$		
		5.4.5(b) $T_{layer5m}$	$\leq 250^{\circ}\text{C}$		
		5.4.5(c) $T_{Unexposed\ side\ 0.9m}$	$\leq 180^{\circ}\text{C}$		
		5.4.5(d) flaming	No flaming		
		5.4.5(d) openings	No openings		
		5.4.5(e) spread	No spread beyond specimen		
		5.4.5(f) debris flaming	$\leq 20\text{ s}$		
		5.4.5(g) debris mass	$\leq 2\text{ kg}$		

You cannot pass part of the AS5113 Criteria, All Boxes must have a PASS to achieve an EW Classification under AS5113 a single or multiple FAIL in any of the Boxes is a FAIL.



Testing. Advising. Assuring.

30 October 2017

Test Sponsor:

TBA Textiles Pty Ltd
12/8 Leighton Place
Hornsby NSW 2077

Attention: Trevor Kempster

Dear Trevor,

Re: Fire propagation testing of a 157mm thick external wall system tested in accordance with AS5113:2016.

This results letter does not constitute a full report and is not a substitute for a full report. The results presented in this letter are preliminary and for internal use only, and no liability will be accepted for the contents of this letter.

A fire propagation test, EWFA No. 52210200, was conducted at Exova Warringtonfire Aus Pty Ltd on the 27th of October 2017, in accordance with AS 5113:2016, on a 157mm thick external wall system. The external wall system consisted of 90mm thick timber frame system clad with one layer of 10mm thick non-fire rated plasterboard on the unexposed side, while the exposed side consisted of one layer of 16mm thick UBIQ INEX board screwed fix to Rondo M535 top hats that were screw fixed to the timber frame with a layer of TBA Firefly (Breathable) Non-combustible sarking and 6mm thick TBA Firefly (Breathable) Vulcan in between. R2.0 90mm Glasswool was installed in the cavity of the timber framing.

This is what a Table on a letter of Results has to look Like for a System which has PASSED AS5113

Initial Results

The AS5113:2016 EW classification indices as related to a BS8414-2 test are detailed below.

Classification Criteria	Related classification measure	Result in test	Pass/Fail
5.4.5(a) T_{w5m}	$\leq 600^{\circ}\text{C}$	Maximum of 368°C at 11 minutes 55 seconds after t_s	Pass
5.4.5(b) $T_{\text{cavity}5m, \text{Battens}}$	$\leq 250^{\circ}\text{C}$	Maximum of 89°C at 22 minutes 20 seconds after t_s	Pass
5.4.5(b) $T_{\text{cavity}5m, \text{Glasswool/TimberFraming}}$	$\leq 250^{\circ}\text{C}$	Maximum of 43°C at 32 minutes 05 seconds after t_s	Pass
5.4.5(c) $T_{\text{unexposedside}0.9m}$	$\leq 180^{\circ}\text{C Rise}$	Maximum of 34°C at 30 minutes 40 seconds after t_s	Pass
5.4.5(d) flaming	No flaming	No flaming	Pass
5.4.5(d) openings	No openings	No openings	Pass
5.4.5(e) spread	No spread beyond specimen	No spread	Pass
5.4.5(f) debris flaming	$\leq 20 \text{ s}$	Flaming for 7s	Pass
5.4.5(g) debris mass	$\leq 2 \text{ kg}$	$> 0.099 \text{ kg}$	Pass
Indicative Classification			EW

TBA FIREFLY INDUSTRY FIRSTS

- 2009 AS1530.4 D1 Power Cables/D2 Comms Cables with Steel Cable Tray **FRL-/180/180**
- 2009 AS1530.8.2 Bushfire Flame Zone Roof (**First and still the only PASS in FULL**)
- 2010 AS1530.8.2 Bushfire Window Test (**PASS**)
- 2015 AS1530.4 Busways/Busducts VASS Steel Encased Sandwich (Copper Conductors) **FRL-/240/240**
- 2016 AS1530.1 Non-breathable Non-combustible Sarking
- 2016 AS1530.4 300mm OD Steel Pipes **FRL-/120/120**
- 2016 AS1530.4 Steel Universal Beams **FRL-/180/180**
- 2016 AS1530.4 Steel C Purlins **FRL-/180/180**
- 2016 AS1530.4 Timber Joist **FRL-/120/120**
- 2017 AS1530.1 Breathable Non-combustible Sarking
- 2017 AS1530.4 ABB Aluminium Encased Busways/Busducts (Copper Conductors) **FRL-/120/120**
- 2017 AS1530.4 ABB Aluminium Encased Busways/Busducts (Aluminium Conductors) **FRL-/120/120**
- 2017 AS1530.4 ABB Resin Encased Busways/Busducts (Copper Conductors) **FRL-/120/120**
- 2017 AS1530.4 ABB Resin Encased Busways/Busducts (Aluminium Conductors) **FRL-/120/120**