



PRODUCT REVIEW REPORT




**SecureView Australia Pty Ltd
Window Screen**

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Client:

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1 SCOPE AND LIMITATIONS OF THE REVIEW

The following scope of works was undertaken with respect to the relevant construction provisions of AS3959-2009 (Amdt 1): Construction of building in bushfire-prone areas, as they relate to the installation of SecureView window and door screens installed in buildings located in a designated bushfire prone area. The AS3959-2009 standard was reviewed in order to incorporate an amendment 1. It is the reviewed version (incorporating amendment 1) that is referenced in this report.

The scope of the review included the following aspects:

- Review of product material specification.
- Review publically available products details, i.e. marketing information.
- Compare reviewed information with the acceptable construction practices in the following documents:
 - AS3959-2009 (incorporating amendment 1) Construction of buildings in bushfire prone areas
- Based on comparative review, provide opinion on where the systems may be suitably used in accordance with the relevant prescribed construction practices for BAL 12.5, BAL19, BAL29 and BAL40.
- Provide recommendations of further testing or assessment of the systems that may be required in order to satisfy other prescribed provisions of AS3959-2009 for those BAL levels.

This review is an opinion to the extent that the subject system may satisfy the relevant prescribed construction practices in AS3959-2009, and is not to be construed as endorsement or certification of compliance against these provisions.

Any technical service that is with respect to the determination of compliance with AS3959-2009 is to be undertaken by an independent third party body, consistent with providing an efficient and robust fire protection product certification services for products.

2 DESCRIPTION OF SYSTEM

2.1 SCREEN

Product Name

SecureView Screen

Product Type

Stainless steel mesh fixed in aluminium extrusion frame

Manufacturer

SecureView Australia Pty Ltd.

Part / Material List

Item	Description	
1	Name	Mesh
	Wire Diameter	0.8 ± 0.015mm
	Mesh Aperture	Nominal 1.509mm
	Wire Material	Grade 316 stainless steel
	Weave Type	Plain weave
	Finish (Woven)	Wire mesh (ISO9044 / ASTM E2016-06)
	Pre-Treatment	Alkaline cleaning / acid etching
	Finish (Powder Coat)	Interpon D610 (Akzo Nobel), polyester
2	Name	Frame
	Material	Aluminium
	Size	Window applications – As shown in figure 2 Door Applications – As shown in figure 3
3	Name	Adhesive
	Material	3M VHB Acrylic adhesive
	Installation	Applied to seal prior to wedge application
4	Name	Wedge and Seal
	Material	PVC
	Installation	Installed in frame to capture mesh

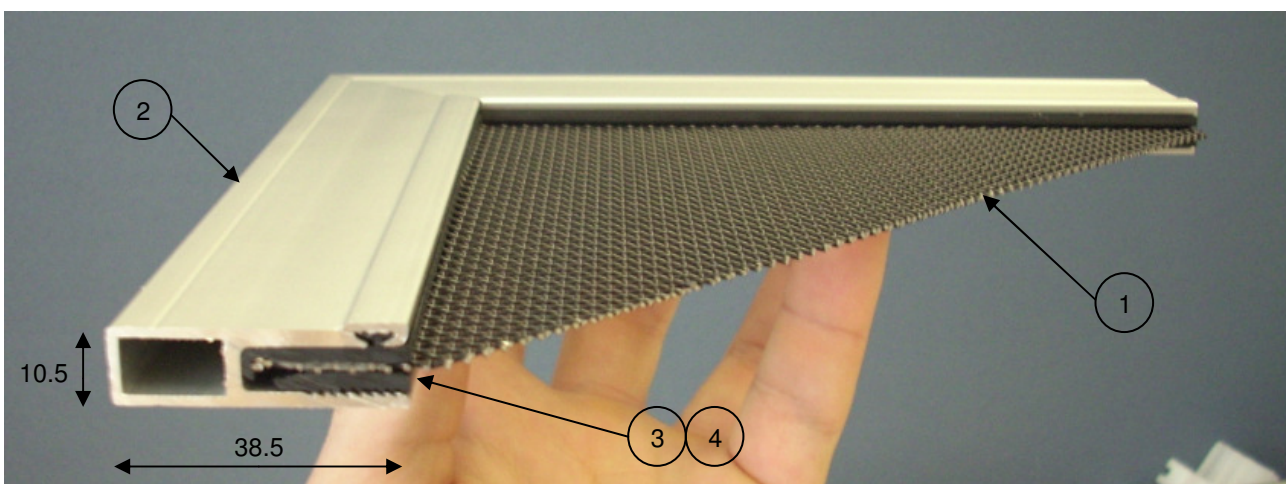


Figure 1 – SecureView Window Screen

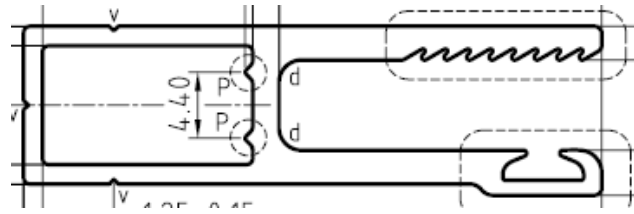


Figure 2 – Aluminium Frame Section for Window Applications (drawing supplied by client)

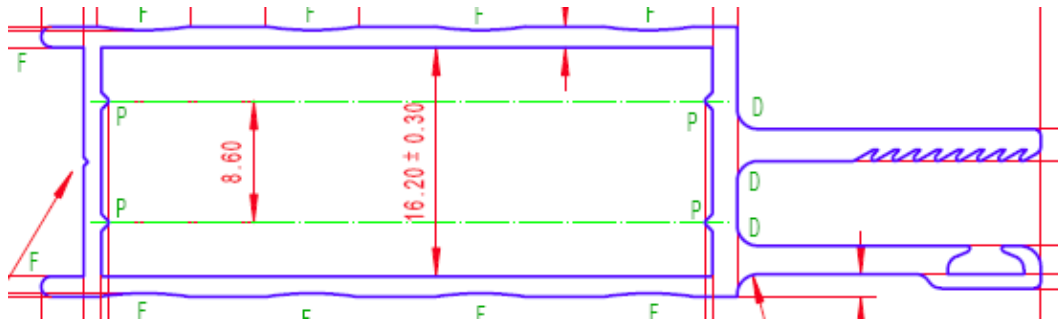


Figure 3 – Aluminium Frame Section for Door Applications

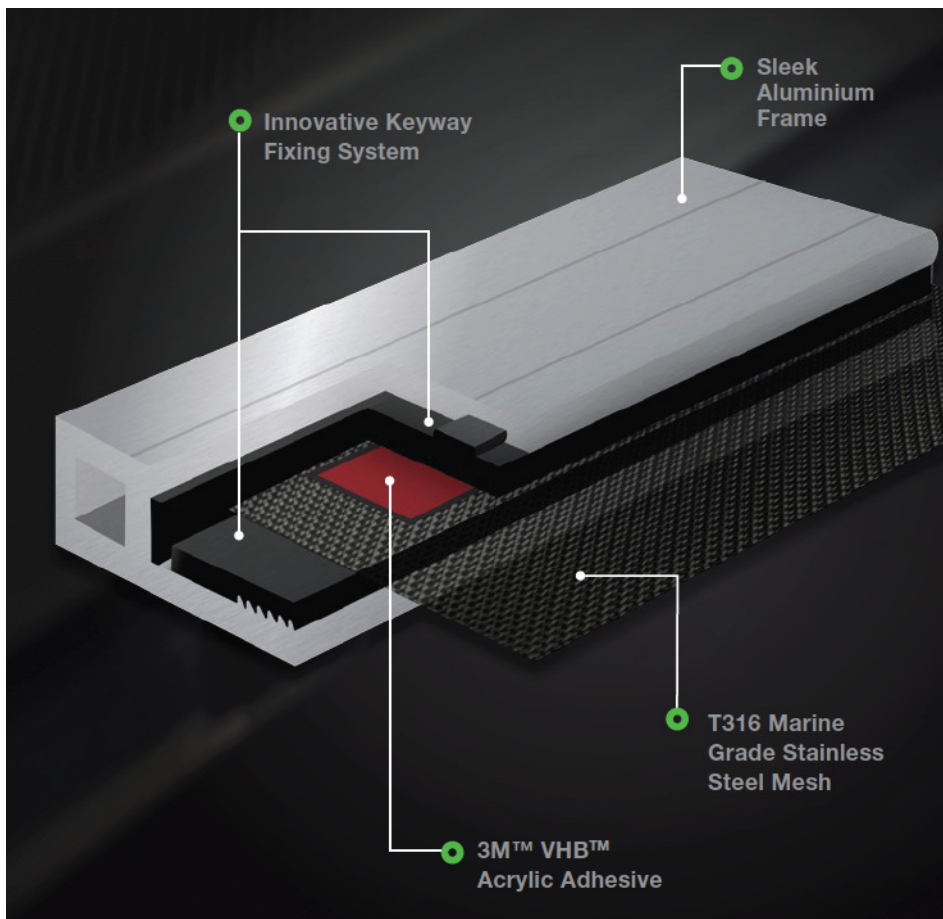


Figure 4– General Construction Details of Screen

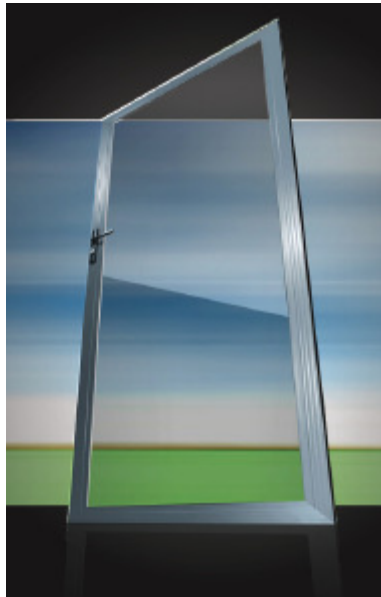


Figure 5 – Typical Full Door Screen

2.2 FIELD OF APPLICATION

The nominated systems and provided information have been compared against the prescribed requirements of AS3959-2009 in order to ascertain the extent that the screen may be used with windows and doors used with the current evidence of suitability (see BCA A2.2) and what further evidence of suitability may be generated to extend the range of prescribed uses.

2.3 REFERENCED TECHNICAL DATA PROVIDED BY SECUREVIEW AUSTRALIA

The following technical information reference sheets were provided by SecureView Australia:

Product	Technical Information
Mesh	Mesh specification
Screen	SecureView catalogue
Window Frame	Detailed drawing – Section No. BE795 Iss.B
Door Frame	Detailed drawing – Section No. HAR159 Rev.1

The following information was not provided or made available for review:

- Any fire related test reports to Australian Standards.

3 PRODUCT REVIEW

The application of the proposed screen product is installed as part of a window or door system and each part plays a critical role in meeting the requirements of AS3959-2009.

The following list of construction requirements shall be met when the SecureView screens are used in bushfire applications.

3.1 WINDOWS

BAL Level Exposure	Construction Requirement For Windows and Screens
12.5	<i>Screen</i>
19	<ul style="list-style-type: none"> The gaps between the perimeter of the screen assembly and the building element to which it is fitted shall not exceed 3mm. The window shall be completely protected externally by screens that comply with 5.5.1A or 6.5.1A as appropriate.
29	<p><i>Screen</i></p> <ul style="list-style-type: none"> The gaps between the perimeter of the screen assembly and the building element to which it is fitted shall not exceed 3mm. <p><i>Window Protected by Screen</i></p> <ul style="list-style-type: none"> Window frames and window joinery shall be made from – <ul style="list-style-type: none"> Bushfire-resisting timber, or Metal, or Metal-reinforced PVC-U. The reinforcing members shall be made from aluminium, stainless steel or corrosion-resistant steel, and the frame and the sash shall satisfy the design load, performance and structural strength of the member. Externally fitted hardware that supports the sash in its functions of opening and closing shall be metal. Glazing shall be toughened glass, minimum 5mm. Where glazing is less than 400mm from the ground or less than 400mm above decks, carport roofs, awnings and similar elements or fittings having an angle less than 18 degrees to the horizontal and extending more than 110mm in width from the window frame, that portion shall be screened externally by screens complying with 7.5.1A. The openable portions of windows shall be screened internally or externally by screens complying with 7.5.1A.
40	<p><i>Screen</i></p> <ul style="list-style-type: none"> The gaps between the perimeter of the screen assembly and the building element to which it is fitted shall not exceed 3mm. <p><i>Window Protected by Screen</i></p> <ul style="list-style-type: none"> Window frames and hardware shall be metal. Glazing shall be toughened glass, minimum 6mm. Both the openable and fixed portions of the window shall be screened externally with screens complying with 8.5.1A. Seals to stiles, head and sills or thresholds shall be manufactured from materials having a flammability index no greater than 5 or from silicone.

3.2 DOORS – SIDE HUNG EXTERNAL

BAL Level Exposure	Construction Requirement For Side Hung Doors and Screens
12.5	<i>Screen</i>
19	<ul style="list-style-type: none"> • The gaps between the perimeter of the screen assembly and the building element to which it is fitted shall not exceed 3mm.
29	<ul style="list-style-type: none"> • The door shall be completely protected externally by screens that comply with 5.5.1A, 6.5.1A or 7.5.1A as appropriate.
40	<p><i>Screen</i></p> <ul style="list-style-type: none"> • The gaps between the perimeter of the screen assembly and the building element to which it is fitted shall not exceed 3mm. <p><i>Door Protected by Screen</i></p> <ul style="list-style-type: none"> • The door shall be – <ul style="list-style-type: none"> ▪ Non-combustible, or ▪ A solid timber door, having a minimum thickness of 35mm for the first 400mm above the threshold and protected on the outside by a metal framed screen door with a mesh or perforated sheet with a maximum aperture of 2mm, made of corrosion-resistant steel or bronze, or ▪ A fully framed glazed door where the framing is made from non-combustible material • Externally fitted hardware that supports the panel in its function of opening and closing shall be made of metal. • Where doors incorporate glazing, the glazing shall be toughened glass, minimum 6mm. • Where glazing is less than 400mm from the ground or less than 400mm above decks, carport roofs, awnings and similar elements or fittings having an angle less than 18 degrees to the horizontal and extending more than 110mm in width from the window frame, that portion shall be screened externally by screens complying with 8.5.1A. • Seals to stiles, head and sills or thresholds shall be manufactured from materials having a flammability index no greater than 5 or from silicone. • Door frames shall be metal. • Doors shall be tight-fitting to the door frame and to an abutting door, if applicable. • Weather strips, draught excluders or draught seals shall be installed at the base of side-hung external doors.

3.3 DOORS – SLIDING

BAL Level Exposure	Construction Requirement For Sliding Doors and Screens
12.5	<p><i>Screen</i></p> <ul style="list-style-type: none"> The gaps between the perimeter of the screen assembly and the building element to which it is fitted shall not exceed 3mm. The door shall be completely protected externally by screens that comply with 5.5.1A, 6.5.1A or 7.5.1A as appropriate.
19	
29	
40	<p><i>Screen</i></p> <ul style="list-style-type: none"> The gaps between the perimeter of the screen assembly and the building element to which it is fitted shall not exceed 3mm. <p><i>Door Protected by Screen</i></p> <ul style="list-style-type: none"> Both the door frame supporting the sliding door and the frame surrounding any glazing shall be metal. Externally fitted hardware that supports the panel in its function of opening and closing shall be made of metal. Where doors incorporate glazing, the glazing shall be toughened glass, minimum 6mm, and both the fixed and openable portions of doors shall be screened externally with screens that comply with 8.5.1A Seals to stiles, head and sills or thresholds shall be manufactured from materials having a flammability index no greater than 5 or from silicone. Sliding doors shall be tight-fitting in the frames.

3.4 SUMMARY OF PROPOSED CONSTRUCTION WITH RESPECT TO AS3959-2009 (AMDT 1)

The application of the proposed system has been reviewed against the prescribed construction requirements nominated in AS3959-2009 (Amdt 1). In each bushfire attack level (BAL) and area of application, it is confirmed that the requirements are met by the proposed system described in Section 2, subject to the requirements of Section 3.1 to 3.3 as summarised below.

Application	AS3959-2009 (Amdt 1) Clause			
	BAL 12.5	BAL 19	BAL 29	BAL 40
Screen Generally	5.5.1A ✓	6.5.1A ✓	7.5.1A ✓	8.5.1A ✓
Windows	5.5.2 (b) ✓	6.5.2 (b) ✓	7.5.2 (b) ✓	8.5.2 (b) ✓
Doors – Side Hung External	5.5.3 (b) ✓	6.5.3 (b) ✓	7.5.3 (b) ✓	8.5.3 (b) ✓
Doors – Sliding	5.5.4 (b) ✓	6.5.4 (b) ✓	7.5.4 (b) ✓	8.5.4 (b) ✓

Notes: ✓ Meets requirement, ✗ does not meet requirement

4 CONCLUSION

4.1 GENERAL

A review has been undertaken of the SecureView screen product specification. It is confirmed that provided the construction requirements regarding the construction of doors and windows listed in Section 3 are met, the proposed SecureView Screens described in Section 2 can be used to meet the requirements of AS3959-2009 for BAL 12.5 – 40, as listed in section 3.4

4.2 FURTHER TESTING

The performance of the proposed screens can be alternatively evaluated in accordance with Clause 3.8 in AS3959-2009 (Amdt 1). This clause allows for testing of any material or system by undertaking testing to AS1530.8.1-2007 at the required BAL level.

The results would then be applicable to the construction tested and the BAL level of the exposure in the tests and all those below it.

It is not envisaged that testing could significantly enhance the performance of the products for BAL12.5-19 as the screen alone is sufficient in that case.

5 VALIDITY / DISCLAIMER

This report is prepared for SecureView Australia and applies to the nominated materials and form of construction under review with respect to AS3959-2009.

Any modifications, changes or amendments to the AS3959-2009 and referenced standards may invalidate the findings of this report. These items should be referred to Exova Warringtonfire (Aus) Pty Ltd to allow consideration to be made of the extent that these changes may have to the outcome of this review, detailed in this report.

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