

CONSULTANT'S ADVICE			Fire Engineering	
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Subject: CLEARSHIELD AUSTRALIA, AS3959-2009 PRODUCT REVIEW STATEMENT				

This document comprises a review of acceptable applications for use of the following proprietary door and window screening systems by Clearshield Australia, with regards to the prescribed construction requirements of AS3959 'Construction of buildings in bushfire-prone areas', 2009.

Table 1 – Assessed systems

Product	Screen material	Framing material	Screen aperture	Corrosion resistant
Clearshield 'Standard' Security Screen	0.8mm thick stainless steel	Aluminium	2mm	Yes (powder coated)
Clearshield 'Ultra-strength Security' Screen	0.8mm thick stainless steel	Aluminium	2mm	Yes (powder coated)
Clearshield 'Emergency Exit' Screen	0.8mm thick stainless steel	Aluminium	2mm	Yes (powder coated)
Clearshield 'Cyclone' Screen'	0.8mm thick stainless steel	Aluminium	2mm	Yes (powder coated)
Clearshield 'Standard' Security Door	0.8mm thick stainless steel	Aluminium	2mm	Yes (powder coated)
Clearshield 'Ultra-strength Security' Door'	0.8mm thick stainless steel	Aluminium	2mm	Yes (powder coated)

The systems detailed in Table 1 are considered to be acceptable for use in the specified Bushfire Attack Levels detailed in Table 2, based upon the prescribed construction requirements of AS3959-2009.

AS3959-2009 allows unconditional use of the systems for BAL-LOW; conditional use of the systems as part of a specified window or door system for BAL-12.5 to BAL-40; and use as supplemental use for BAL-FZ systems.

Table 2 – Allowable use with regards to Bushfire Attack Level (BAL)

Product	Acceptable use within BAL category					
	Low ^(a)	12.5	19	29	40	FZ
Clearshield 'Standard' Security Screen	Yes	Yes ^(b)	Yes ^(d)	Yes ^(f)	Yes ^(h)	Supplemental ^(j)
Clearshield 'Ultra-strength Security' Screen	Yes	Yes ^(b)	Yes ^(d)	Yes ^(f)	Yes ^(h)	Supplemental ^(j)
Clearshield 'Emergency Exit' Screen	Yes	Yes ^(b)	Yes ^(d)	Yes ^(f)	Yes ^(h)	Supplemental ^(j)
Clearshield 'Cyclone' Screen'	Yes	Yes ^(b)	Yes ^(d)	Yes ^(f)	Yes ^(h)	Supplemental ^(j)
Clearshield 'Standard' Security Doors	Yes	Yes ^(c)	Yes ^(e)	Yes ^(g)	Yes ⁽ⁱ⁾	Supplemental ^(k)
Clearshield 'Ultra-strength' Security Doors	Yes	Yes ^(c)	Yes ^(e)	Yes ^(g)	Yes ⁽ⁱ⁾	Supplemental ^(k)

It should be noted that: in order to achieve compliance with AS3959-2009, other construction requirements may apply in addition to use of the door and screen systems detailed in Table 1. These provisions vary according to the BAL and include requirements for glass types and thicknesses, limitations of window framing materials etc.

The information detailed in Table 3 should therefore be read in conjunction with the general requirements of AS3959-2009, and is considered to comprise only part of a solution for an AS3959-2009 compliant window or door protection system.

Table 3 – Notes, limitations and references from Table 2

Note	System	BAL	Comment	AS3959-2009 reference
(a)	All screen & door systems	Low	Can be used for internal and external protection of door and window systems without limitation.	4
(b)	Standard, Ultra-strength, Emergency Exit & Cyclone Screens	12.5	Can be used for complete external protection; or for protection of openable parts only. Fixed parts are optional. Other construction requirements apply.	5.5.1A & 5.5.2 (b) & 5.5.2(c)(v)
(c)	Standard & Ultra-strength security doors	12.5	Can be used for complete external protection; or for protection of openable parts of sliding doors only. Fixed parts are optional. Other construction requirements apply.	5.5.1A & 5.5.3(b) & 5.5.3(c)(ii) & 5.5.4 (b) & 5.5.4(c)(iii)
(d)	Standard, Ultra-strength, Emergency Exit & Cyclone Screens	19	Can be used for complete external protection; or for protection of openable parts only. Fixed parts are optional. Other construction requirements apply.	6.5.1(A) & 6.5.2(b) & 6.5.2(c)(iv) & 6.5.2(c)(v) & 6.5.2(c)(vi)
(e)	Standard & Ultra-strength security doors	19	Can be used for complete external protection; or for protection of openable parts of sliding doors. Fixed parts are optional. Other construction requirements apply.	6.5.1(A) & 6.5.3(b) & 6.5.4(b) & 6.5.4(c)(iii)
(f)	Standard, Ultra-strength, Emergency Exit & Cyclone Screens	29	Can be used for complete external protection; or for protection of openable parts only. Fixed parts are optional. Other construction requirements apply.	7.5.1(A) & 7.5.2(b)(v) &
(g)	Standard & Ultra-strength security doors	29	Can be used for complete external protection for side hung and sliding doors. Other construction requirements apply.	7.5.1(A) & 7.5.3(b) & 7.5.3(c)(i)(C) & 7.5.3(c)(iv) & 7.5.4(b) & 7.5.4(c)(iii)
(h)	Standard, Ultra-strength, Emergency Exit & Cyclone Screens	40	Can be used for complete external protection. Other construction requirements apply.	8.5.1(A) & 8.5.2(b)(iii)
(i)	Standard & Ultra-strength security doors	40	Can be used for complete external protection for side hung and sliding doors. Other construction requirements apply.	8.5.1(A) & 8.5.3(b)(i)(B) & 8.5.3(b)(iv) & 8.5.4(b)(iii)
(j)	Standard, Ultra-strength, Emergency Exit & Cyclone Screens	FZ	Can be used to provide protection internally or externally for openable parts, in conjunction with: (a) a -/30/- minutes FRL window assembly, or (b) a window assembly tested in accordance with AS1530.8.2 (tested from the outside). Fixed parts are optional. Other construction requirements apply.	9.5.1(A) & 9.5.2(b)
(k)	Standard & Ultra-strength security doors	FZ	Screened door assemblies are not part of the requirements for BAL-FZ. However; they can be used internally or externally to provide supplemental protection in conjunction with: (a) a -/30/- minutes FRL door assembly, or (b) a door assembly tested in accordance with AS1530.8.2 (tested from the outside) <i>Provided they are not considered to compromise the fire performance of the tested system.</i> Other construction requirements apply.	9.5.1(A) & 9.5.3(b) & 9.5.4(b)

It should be noted the construction requirements specified for a particular BAL are also be acceptable for lower levels of construction. For example: for a site that has been assessed as BAL-12.5, the construction requirements for BAL19, BAL-29, BAL-40 and BAL-FZ shall also be acceptable.¹

It should also be noted that where a material, element of construction or system satisfies the test criteria of AS1530.8.1 or 1530.8.2 (for BAL-12.5 to BAL-FZ) *without* screening for ember protection; the requirements of the standard for screening of openable parts of windows and doors still apply.²

This review has been undertaken in consideration of AS3959-2009 (incorporating Amendment No.1) and is correct at the date of issue. Subsequent variations to this standard may invalidate the content of the report and should be reviewed against the standard.

This assessment relates explicitly to the Clearshield Australia systems detailed in Table 1 and should not be applied to any other systems without the written consent of the Exova Warringtonfire Australia.

Yours faithfully,

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For and on behalf of Exova Warringtonfire Aus Pty Ltd.

¹ Clause 3.4, AS3959 'Construction of buildings in bushfire-prone areas', 2009, Standards Australia

² Clause 3.8, AS3959 'Construction of buildings in bushfire-prone areas', 2009, Standards Australia