ASSA ABLOY AUSTRALIA

TEST REPORT 2012059-4

Snaplock
Fixed Security Window Grille (Small Diamond)
Sample Number – 145984-11

FOR

Prowler Proof

NATA
WORLD RECOGNISED ACCREDITATION

NATA Accredited Laboratory
Number: 14426

Accredited for compliance with ISO/IEC 17025

Date of issue: 12/09/2012

Test Report Security window Grille			
Test Report Number:	2012059-4	**Project Number:**	10541
Manufactured By:	Prowler Proof	**Date of Submission:**	11/09/2012
Tested By:	A Sterrenberg and C Horton	**Date:**	11/09/2012
Certified By:	A Sterrenberg	**Date:**	11/09/2012
Witnessed By:	Michael Henry	**Date:**	11/09/2012

Details of Test Window

Type and Class:	Type 1 Class A
Make or Model:	Snaplock – Small Diamond
Sample Number:	145984-11
Frame Size:	1500mm x 900mm
Framing Material:	Pinus Radiata
Constructional Description of Test Security Window Grille:	
Fixed security window grille with infill secured utilising Prowler Proof SnapLock method. Frame corners welded.	

Details of Test Window Infill

Type and Fabrication Method:	Extruded and expanded small diamond aluminium grille
Manufacturer's Name / Part Number:	Prowler Proof - PPSD125
Type 1 Mesh Infill (if applicable)	
1) Number of Intersected Strands in a 150mm Circle:	12
2) Breaking Force in Shear of One Strand (min 3kN):	3.93
Multiplication of Above Points 1 and 2 (min 30kN):	47.18

(Above details supplied by customer not by testing authority)

Test Report
Security Window Grille

Dynamic Impact Test – AS 5039 / 5041

Measurement Before Impact Test at Impact Point (datum reading): 10mm			
Test	**Remarks**	**Pass**	**Fail**
Impact One:	11mm Deflection from datum. Grille secure to frame.	**ü**	-
Impact Two:	14mm Deflection from datum. Grille secure to frame.	**ü**	-
Impact Three:	17mm Deflection from datum. Grille secure to frame.	**ü**	-
Impact Four:	18mm Deflection from datum. Grille secure to frame.	**ü**	-
Impact Five:	18mm Deflection from datum. Grille secure to frame.	**ü**	-
65mm Probe check:	Type 1	**ü**	-

Jemmy Tests – AS 5039 / 5041

Location	**Remarks**	**Pass**	**Fail**
Centre Locking Point:	**No gap arose to allow for jemmy tests - Pass**		
Bottom Locking Point:			
Top Locking Point:			
Centre Hinge:			
Bottom Hinge			
Top Hinge:			

Infill Pull Tests – AS 5039/5041-2003

Location	**A 450mm Maximum**	**B 150mm Maximum**	**C 100x100mm Maximum**	**D**	**E**	**Pass**	**Fail**
Centre Grille (1.5kN):	**ü**	**ü**	**ü**	**ü**	**ü**	**ü**	
Top Corner (1.5kN):	**ü**	**ü**	**ü**	**ü**	**ü**	**ü**	
Bottom Corner (1.5kN):	**ü**	**ü**	**ü**	**ü**	**ü**	**ü**	

A - Maximum size of any gap between grille and grille frame or grille frame and door frame under load (dynamic).
B - Maximum size of any gap between grille and grille frame or grille frame and door frame after load (static).
C - The size of any gap caused by the infill breaking away from the security grille framing.
D - Whether the grille remained in a fixed position.
E - Whether the locking device maintained the door in a locked position.

Overall Test	**Pass**
Remarks:	Impact test - Pass
	Jemmy test - Pass
	Pull test - Pass

This signature indicates that testing has been conducted in accordance to the current test methods of AS 5039, and test results reflect the test findings. This report is true for the test sample presented on the day of testing.

Authorised Signature ..... Print Name A. Sternberg Date 12/09/12

Accredited for compliance with ISO/IEC 17025

Identification Details for Security Window Grille
Submitted for Type Testing in Accordance to AS 5039/5041

General

Model Number / Name:	SnapLock SD
Sample Number:	145984-11
Manufactured By:	Prowler Proof
Date of Submission:	11/09/12
Description:	Fixed security screen window

DRAWINGS: COMPLETE ATTACHED SHEETS
(To show additional specific details of door construction such as internal stiffening, hinging, etc., attach further sheets as necessary)

Framing Section

Type:	Extruded aluminium			
Manufacturer's-	**Name:**	Prowler Proof	**Section Number:**	SLW11
Attached Dimensional Drawing-	**Number:**	-	**Issue:**	-
Material Type and Grade:	Aluminium 6060-T5			
Surface Finish:	Powder coat			
Mass per Metre Length (kg):	-			
Mounting Frame Material:	See attached CAD drawings			

(Attach drawings if necessary)

Corner Stake – N/A Welded corners

Infill

Type and Fabrication Method:	Small Diamond Grille			
Manufacturer's-	**Name:**	Prowler Proof	**Part Number:**	PPSD125
Attached Dimensional Drawing-	**Number:**	-	**Issue:**	-
Material Type and Grade:	Aluminium 6063-T5			
Surface Finish:	Anodised			
Diameter of Type 3 Infill:	See attached			

Means of Securing:	Weld		Screw		Rivet		Other	✓

(If means of securing is OTHER, submit full details on a separate sheet)

Fastener Details:

Type: Clamp and bonded - Every contact point **Part Number:** SL Clamp

Material	Alum		St.Steel		Monel		Steel		OTHER	✓

(Attach drawings if necessary)

Manufactured By:	Prowler Proof
Sample Number:	145984-11

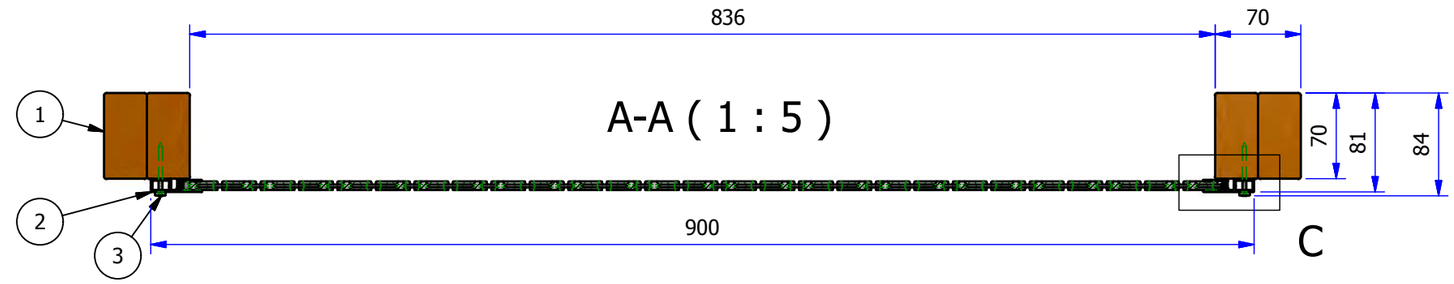
Location of Fixing Points, Locking Points, Hinges and Mid-Rail – Refer attached cad drawing SLSD - Testing sample

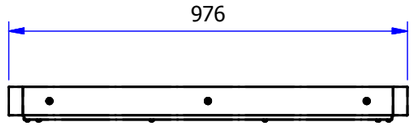
Means of Securing Infill to Framing, Location of Welds / Fasteners - Refer attached cad drawing SLSD - SnapLock Small Diamond Window

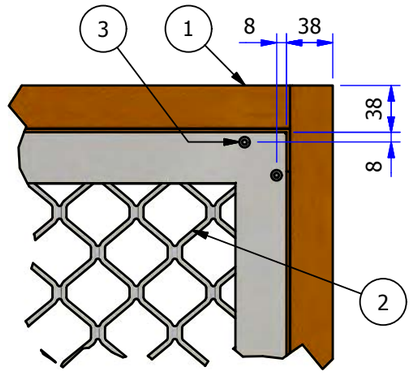
End

IF IN DOUBT ASK

BILL OF MATERIALS						
ITEM	QTY	DESCRIPTION	STOCK NO./DESC.	MATERIAL	LENGTH	WIDTH
1	1	WINDOW TIMBER - TEST FRAME	AS5039-SLSD FW2004			
2	1	SLLD - SnapLock Small Dimond Window	AS5039-SLSD FW2001			
3	20	ASSY-Pan Head AW20 4.5x40mm	100642	Mild Steel		







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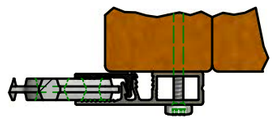

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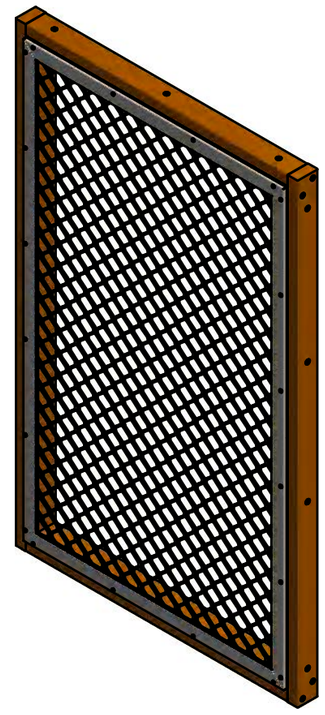
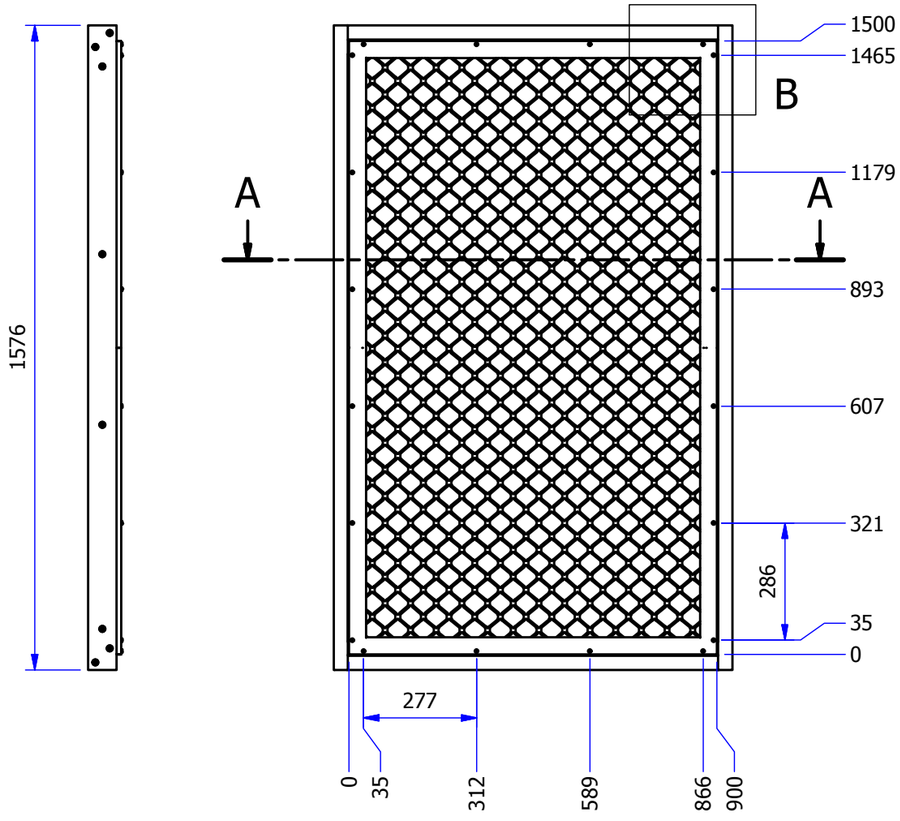


ISOMETRIC VIEW



FRONT VIEW 1 (1 : 15)

REV. No	REVISION DESCRIPTION	DRAWN	DATE	APP. BY	DATE

REVISION HISTORY

Prowler Proof

GERSHWIN PTY LTD

122 BUCHANAN RD

BANYO, QLD. 4014

PH: +61 7 3363 0666

FAX: +61 7 3267 5411

DRAWN: CAD	DATE: 11/11/2012	TITLE: AS5039 - Testing SLLD - Testing Sample	PROCESS CODE:
CHECKED	DATE		SHEET 1 OF 1
APPR.	DATE	PART NUMBER: AS5039-SLSD FW1000	DRAWING DOCUMENT FILE NAME: AS5039-SLSD FW1000.idw MODEL DOCUMENT FILE NAME: AS5039-SLSD FW1000.iam
			SCALE NTS
RAW MATERIAL	MATERIAL THICKNESS	STOCK NUMBER / DESCRIPTION	REV.

UNLESS OTHERWISE SPECIFIED
XX = • 1mm
X.X = • 0.5mm
XX.XX = • 0.25mm
MACHINE FINISHES = 3.2
= ± 1••

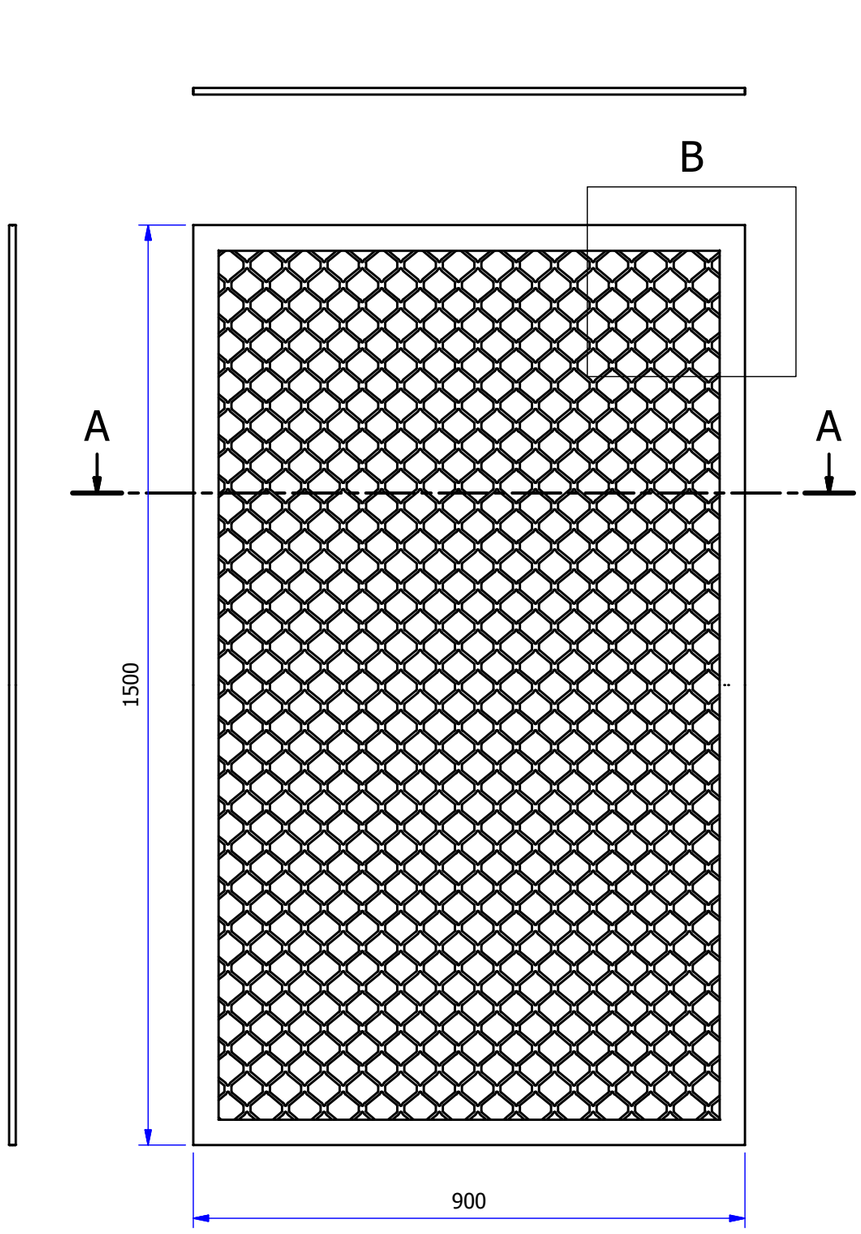
ALL DIMENSIONS IN MILLIMETERS
ALL THREAD TO BE METRIC COARSE
ALL WELDS TO AS1554
ALL BURRS AND SHARP EDGES TO BE REMOVED

PROJECTION 3RD ANGLE

DO NOT SCALE DRAWING | WEIGHT: 19.49 kg | SHEET SIZE: A3 | INV.

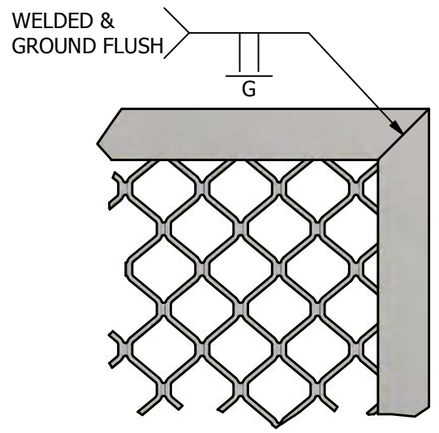
IF IN DOUBT ASK

BILL OF MATERIALS						
ITEM	QTY	DESCRIPTION	STOCK NO./DESC.	MATERIAL	LENGTH	WIDTH
1	1	SD 1250 X 2450 MF	102567	AL 6063 T5	1446	846
2	4	SL Clamp - 3000mm - Black	100039	Al 6060 T5		
3	4	SLW11 5800mm MF	100037	Al 6060 T5		



FRONT VIEW 1
(1 : 10)

A-A (1 : 5)



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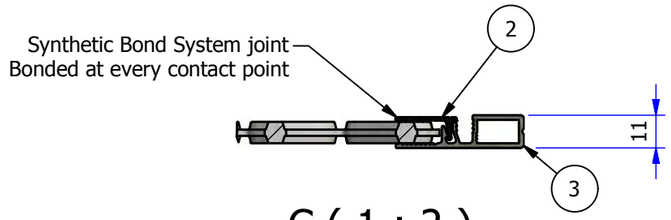

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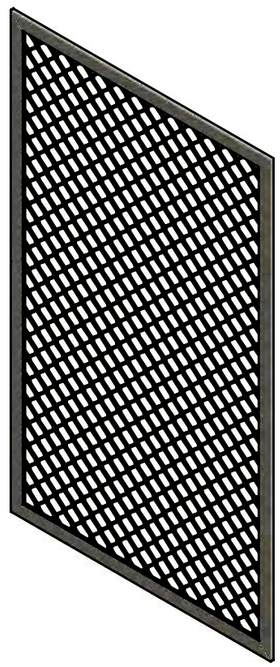


ISOMETRIC VIEW

REV. No	REVISION DESCRIPTION	DRAWN	DATE	APP. BY	DATE

REVISION HISTORY

Prowler Proof
GERSHWIN PTY LTD
122 BUCHANAN RD
BANYO, QLD. 4014
PH: +61 7 3363 0666
FAX: +61 7 3267 5411

DRAWN: CAD	DATE: 11/11/2012	TITLE: AS5039 - Testing SLLD - SnapLock Small Dimond Window	PROCESS CODE:
CHECKED	DATE		SHEET 1 OF 1
APPR.	DATE	PART NUMBER: AS5039-SLSD FW2001	DRAWING DOCUMENT FILE NAME: AS5039-SLSD FW2001.idw MODEL DOCUMENT FILE NAME: AS5039-SLSD FW2001.iam
			SCALE: NTS
RAW MATERIAL	MATERIAL THICKNESS	STOCK NUMBER / DESCRIPTION: AS5039-SLSD FW2001	REV.

UNLESS OTHERWISE SPECIFIED
XX = • 1mm
X.X = • 0.5mm
XX.XX = • 0.25mm
MACHINE FINISHES = 3.2
= ± 1••

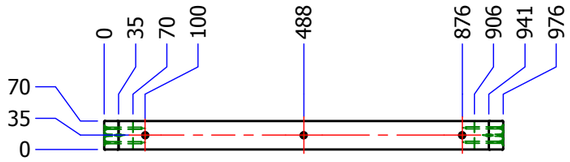
ALL DIMENSIONS IN MILLIMETERS
ALL THREAD TO BE METRIC COARSE
ALL WELDS TO AS1554
ALL BURRS AND SHARP EDGES TO BE REMOVED

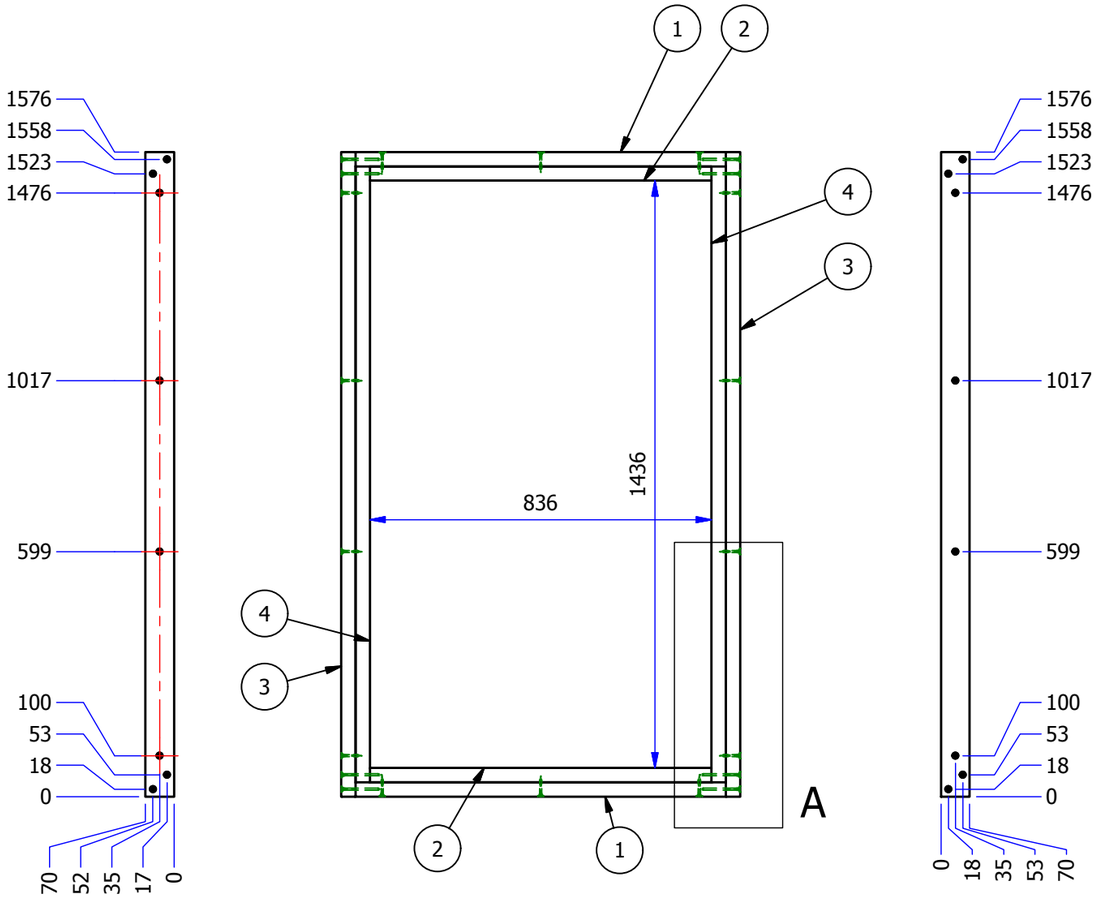
PROJECTION 3RD ANGLE

DO NOT SCALE DRAWING | WEIGHT: 5.71 kg | SHEET SIZE: A3 | INV.

IF IN DOUBT ASK

BILL OF MATERIALS						
ITEM	QTY	DESCRIPTION	STOCK NO./DESC.	MATERIAL	LENGTH	WIDTH
1	2	Radiata Pine - MGP15 Stud 70x35		Pine	906	35
2	2	Radiata Pine - MGP15 Stud 70x35		Pine	836	35
3	2	Radiata Pine - MGP15 Stud 70x35		Pine	1576	35
4	2	Radiata Pine - MGP15 Stud 70x35		Pine	1506	35
5	14	Bugle Head Batten Screw 14gx50mm		Steel, Mild	50	
6	8	Bugle Head Batten Screw 14gx100mm		Steel, Mild	100	





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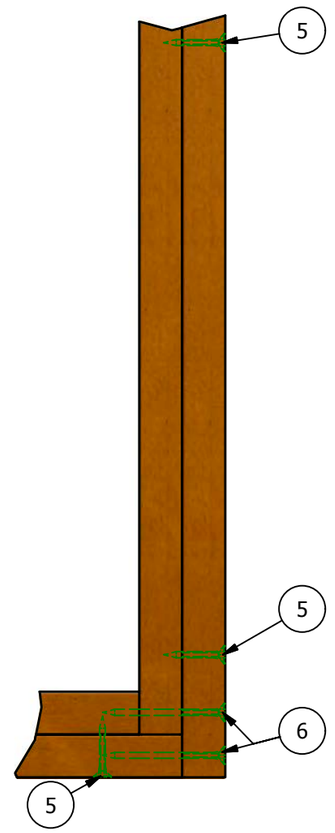
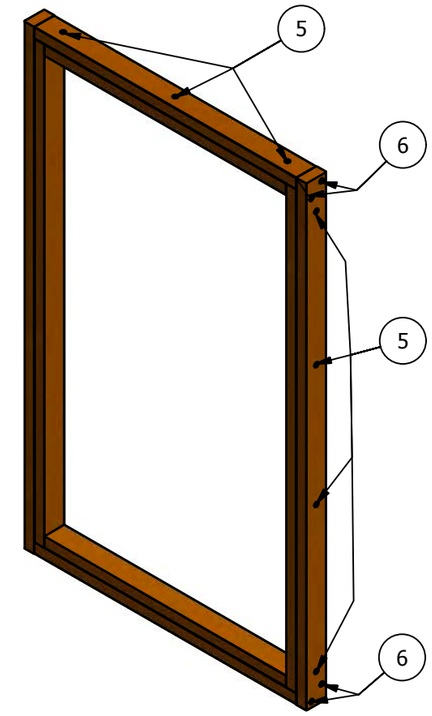
(1 : 15)



A (1 : 5)



ISOMETRIC VIEW

REVISION HISTORY					
REV. No	REVISION DESCRIPTION	DRAWN	DATE	APP. BY	DATE

Prowler Proof

GERSHWIN PTY LTD

122 BUCHANAN RD

BANYO, QLD. 4014

PH: +61 7 3363 0666

FAX: +61 7 3267 5411

DRAWN: CAD	DATE: 11/11/2012	TITLE: AS5039 - Testing	PROCESS CODE:
CHECKED	DATE	WINDOW TIMBER - TEST FRAME	SHEET 1 OF 1
APPR.	DATE	PART NUMBER: AS5039-SLSD FW2004	DRAWING DOCUMENT FILE NAME: AS5039-SLSD FW2004.idw; MODEL DOCUMENT FILE NAME: AS5039-SLSD FW2004.iam; SCALE: NTS
RAW MATERIAL		MATERIAL THICKNESS	STOCK NUMBER / DESCRIPTION: AS5039-SLSD FW2004; REV.

UNLESS OTHERWISE SPECIFIED
XX = • 1mm
X.X = • 0.5mm
XX.XX = • 0.25mm
MACHINE FINISHES = 3.2
= ± 1••

ALL DIMENSIONS IN MILLIMETERS
ALL THREAD TO BE METRIC COARSE
ALL WELDS TO AS1554
ALL BURRS AND SHARP EDGES TO BE REMOVED

PROJECTION 3RD ANGLE

DO NOT SCALE DRAWING | WEIGHT: 13.72 kg | SHEET SIZE: A3 | INV.

AZUMA
Design

NATA Accredited Laboratory No: 15147

NATA
WORLD RECOGNISED ACCREDITATION

AZUMA
Design

AS5039

TEST REPORT
(Shear test only)

Azuma Design Pty Ltd

Address: 160 Newton Rd Wetherill Park NSW 2164 Australia **PH**: 61(02)9604 0255 **FAX**: 61(02)9604 0466

AZUMA Design

NATA Accredited Laboratory No: 15147

NATA WORLD RECOGNISED ACCREDITATION

SHEAR TEST REPORT

AZT Number: AZT0065.12

Date: 1st May 2012

Manufactured By: PROWLER PROOF

Sample identification: KAU 1859, Alloy Temper 6063

Surface finish: Mill finish Aperture: 42mm

Type: I

Aim: To test the sample in accordance with Section 7 of AS5041-2003-Methods of test- Security Screen Doors and Window Grilles.

Method:

- Transpose a circle of 150 mm diameter onto the infill of the test specimen. Count and record the number of chords/strands of the infill material/grille that are intersected by the circle.
- Choose a sample chord from the test specimen. For infill material of a regular, uniform design, the sample shall be a typical strand, clear of any knuckles or webs. For infill materials of irregular design and varying strand size, the thinnest structural strand intersected by the 150 mm circle shall be taken.
- Position the sample in the shear apparatus so that its orientation in relation to the cutting edges corresponds approximately to the direction of attack within a cutting tool in situ in an infill.
- Apply a load to the test sample at a rate of 19 mm/min cross-head travel and increase the load until fracture occurs.
- Record the shear force at fracture. If a double shear tool is used, the shear force recorded shall be half that which was measured.

Requirements:

(a) The breaking force of the chords shall be not less than 30 kN.
(b) The shear force of any chord shall be not less than 3 kN.

Test equipment:

Azuma Hydraulic test rig
Double shear tool

Azuma Design Pty Ltd

Address: 160 Newton Rd Wetherill Park NSW 2164 Australia PH: 61(02)9604 0255 FAX: 61(02)9604 0466

SHEAR TEST REPORT

Results;

Sample C

Shear	Orientation	Double shear force	Shear force (Half of double shear force)
1	Vertical	6980	3490
2	Vertical	7350	3675
3	Vertical	7480	3740
4	Horizontal	8140	4070
5	Horizontal	8420	4210
6	Horizontal	8460	4230
7	Diagonal	8020	4010
8	Diagonal	8080	4040
9	Diagonal	7850	3925
		Average =	3932.22 N

1 Number of Intersections of Strands by 150mm Dia Circle: 12

2 Average Breaking Force in Shear of one Strand (min 3kN): 3.93 kN

Multiplication of above points 1 and 2 (min 30kN): 47.18 kN

Remarks: **PASSED**

Azuma Design Pty Ltd

Address: 160 Newton Rd Wetherill Park NSW 2164 Australia **PH**: 61(02)9604 0255 **FAX**: 61(02)9604 0466

AZUMA Design

NATA Accredited Laboratory No: 15147

NATA WORLD RECOGNISED ACCREDITATION

SHEAR TEST REPORT

Sample D

Shear	Orientation	Double shear force	Shear force (Half of double shear force)
1	Vertical	7710	3855
2	Vertical	7300	3650
3	Vertical	7500	3750
4	Horizontal	8750	4375
5	Horizontal	8220	4110
6	Horizontal	8770	4385
7	Diagonal	8400	4200
8	Diagonal	7820	3910
9	Diagonal	7870	3935
		Average =	4018.88 N

3 Number of Intersections of Strands by 150mm Dia Circle: 12

4 Average Breaking Force in Shear of one Strand (min 3kN): 4.01 kN

Multiplication of above points 1 and 2 (min 30kN): 48.22 kN

Remarks: **PASSED**

CONCLUSION

From the results achieved it is evident that the sample satisfies requirement 7.6 of AS5039-2008- Security screen doors and window grilles.

SIGNATORY NAME: Rob Irwin

SIGNATURE:

DATE: 1st May 2012

Azuma Design Pty Ltd

Address: 160 Newton Rd Wetherill Park NSW 2164 Australia **PH**: 61(02)9604 0255 **FAX**: 61(02)9604 0466

DATE: 1st May 2012

EQUIPMENTS USED TO PERFORM THE ABOVE TEST

EQUIPMENT NAME	EQUIPMENT NUMBER	√ IF USED
Tape Measure	AZTAPE0001	
1500mm Steel Rule	AZRULE0001	
Shear Test Apparatus	AZTEST0009	
Hydraulic Load Test Rig Readout	AZTEST0008	
200 mm Digital Caliper	AZCALI0010	
Knife Shear Knife	AZKNIF0001	
Knife Shear Blade	AZBLAD0001	

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