

TEST REPORT 2012059-6

**ForceField
Fixed Security Screen Window Sample Number
– 145984-7**

FOR

Prowler Proof



**NATA Accredited Laboratory
Number: 14426**

**Accredited for compliance with ISO/IEC
17025**

Date of issue: 12/09/2012

**Test Report
Hinged Security Screen Door**

Test Report Number:	2012059-6	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:	Fixed Security Screen Window - Type 1 Class A
Make or Model:	ForceField
Sample Number:	145984-7
Frame Size:	1500mm x 900mm
Framing Material:	Pinus Radiata
Constructional Description of Test Security Window Grille:	
An aluminium fixed security screen window containing woven stainless steel mesh infill	

Details of Test Window Infill

Type and Fabrication Method:	Woven stainless steel mesh		
Manufacturer's-	Name:	Meshtec International	Part Number: SS Mesh BK
	0.8mm 316 Stainless Steel woven mesh - plain weave 11x11 strands per inch - powder coated black		
Material Type and Grade:			

Test Report Fixed Window Grille

Dynamic Impact Test – AS 5039 / 5041

Measurement Before Impact Test at Impact Point (datum reading): 10mm			
Test	Remarks	Pass	Fail
Impact One:	Mesh secure to frame.	ü	-
Impact Two:	Mesh secure to frame	ü	-
Impact Three:	Mesh secure to frame	ü	-
Impact Four:	Mesh secure to frame	ü	-
Impact Five:	Mesh secure to frame	ü	-
150mm Diameter Probe test using R.M.F:		ü	-

Jemmy Tests – AS 5039 / 5041

Location	Remarks	Pass	Fail
Centre Locking Point:	Face fix - No lever access gained for jemmy test - 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):	No gaps arose to allow for pull tests - Pass						
Top Corner (1.5kN):							
Bottom Corner (1.5kN):							

- 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.

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

General

Model Number / Name:	ForceField
Sample Number:	145984-7
Manufactured By:	Gershwin Pty Ltd trading as 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:	FFW11
Attached Dimensional Drawing-	Number: -	Issue:	-
Material Type and Grade:	Aluminium 6060-T5		
Surface Finish:	Powder coated		
Mass per Metre Length (kg):	-		
Mounting Frame Material:	See attached CAD drawings		
(Attach drawings if necessary)			

Infill

Type and Fabrication Method:	Woven stainless steel mesh		
Manufacturer's-	Name: Meshtec International	Part Number:	SS Mesh BK
Attached Dimensional Drawing-	Number: Refer attached shear test	Issue:	-
Material Type and Grade:	0.8mm 316 Stainless Steel		
Surface Finish:	Powder coated		
Diameter of Type 3 Infill:	0.8mm		
<u>Fastener Details:</u>			
Type:	Bonded - Every contact point		Part Number: -
Material	Alum	St.Steel	Monel
	Steel	OTHER	ü
(Attach drawings if necessary)			

Manufactured By: Prowler Proof

Sample Number: 145984-7

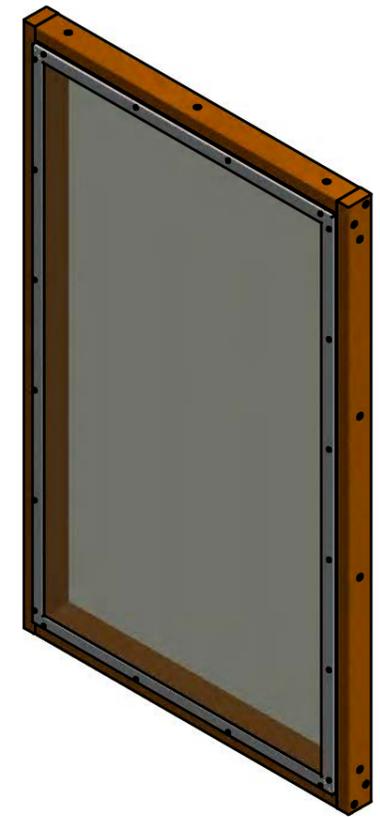
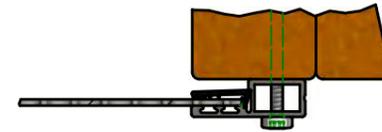
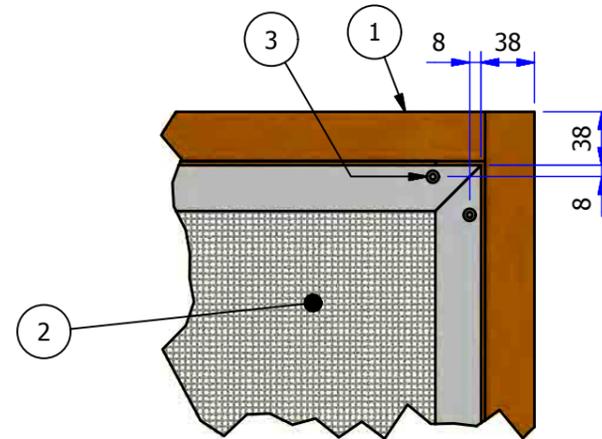
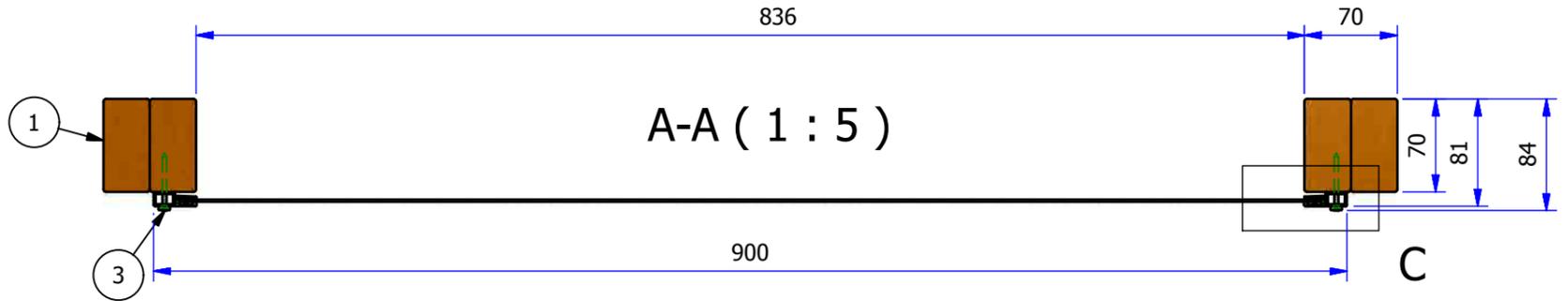
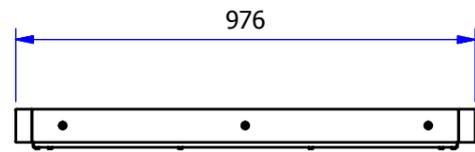
Location of Fixing Points, Locking Points, Hinges and Mid-Rail - Refer attached CAD Drawing FF - ForceField Window

Means of Securing Infill to Framing, Location of Welds / Fasteners - Refer attached CAD Drawing FF - ForceField Window

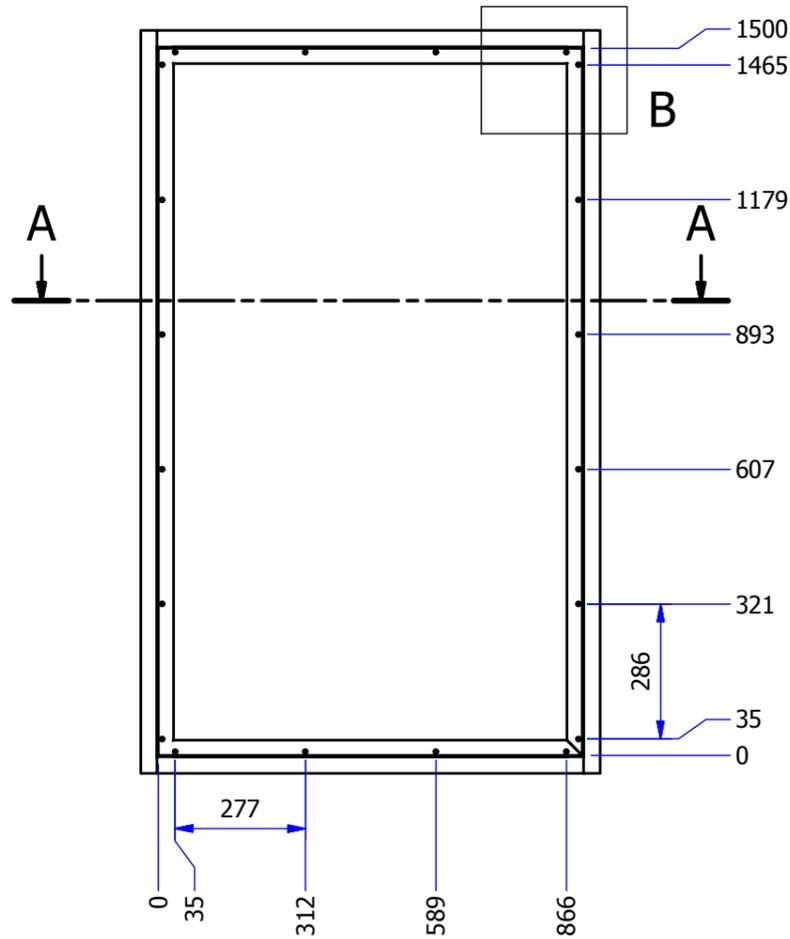
End

BILL OF MATERIALS

ITEM	QTY	DESCRIPTION	STOCK NO./DESC.	MATERIAL	LENGTH	WIDTH
1	1	WINDOW TIMBER - TEST FRAME	AS5039-FF FW2004			
2	1	FF - ForceField Window	AS5039-FF FW2001			
3	20	ASSY-Pan Head AW20 4.5x40mm	100642	Mild Steel		



ISOMETRIC VIEW



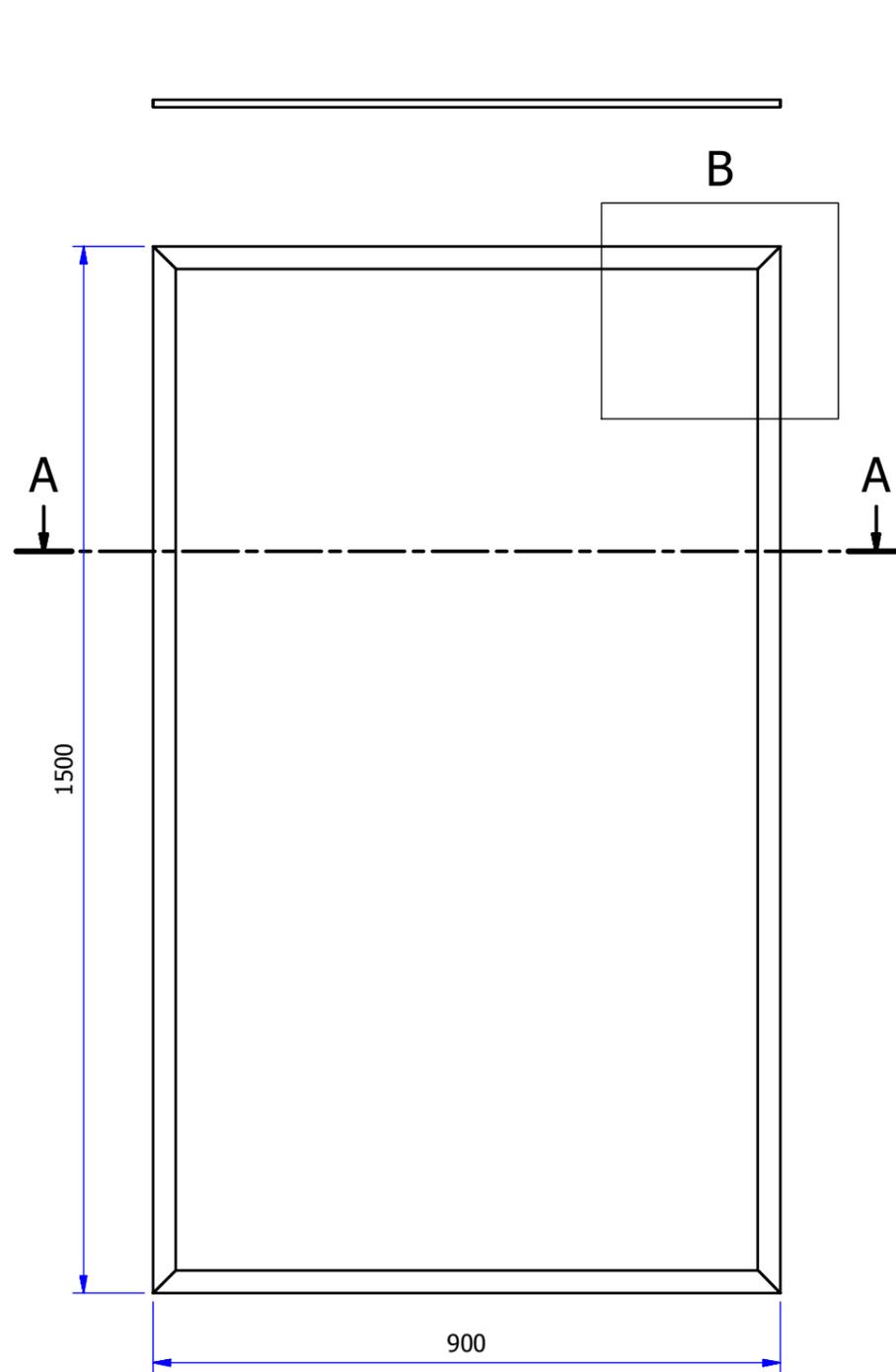
FRONT VIEW 1 (1 : 15)

<p>Prowler Proof GERSHWIN PTY LTD 122 BUCHANAN RD BANYO, QLD. 4014 PH: +61 7 3363 0666 FAX: +61 7 3267 5411</p>	DRAWN	DATE	TITLE:	PROCESS CODE:
	CAD	21/11/2012	AS5039 - Testing	SHEET
	CHECKED	DATE	ForceField - Testing Sample	1 OF 1
	APPR.	DATE	PART NUMBER:	SCALE
RAW MATERIAL	MATERIAL THICKNESS	AS5039-FF FW1000	NTS	REV.
<p>UNLESS OTHERWISE SPECIFIED XX = • 1mm MACHINE FINISHES = 3.2 X.X = • 0.5mm XX.XX = • 0.25mm</p>		<p>DRAWING DOCUMENT FILE NAME: AS5039-FF FW1000.idw MODEL DOCUMENT FILE NAME: AS5039-FF FW1000.iam</p>		<p>ALL DIMENSIONS IN MILLIMETERS ALL THREAD TO BE METRIC COARSE ALL WELDS TO AS1554 ALL BURRS AND SHARP EDGES TO BE REMOVED</p>
<p>• THIS DRAWING AND ITS CONTENTS ARE CONFIDENTIAL AND ARE SUBJECT TO RETURN ON DEMAND AND MAY NOT BE COPIED OR DISCLOSED TO ANY THIRD PARTY OR USED DIRECTLY OR INDIRECTLY FOR ANY OTHER PURPOSE THAN AS EXPRESSLY DETERMINED IN WRITING BY Gershwin Pty. Ltd.</p>			<p>DO NOT SCALE DRAWING</p>	<p>WEIGHT: 16.08 kg</p>
<p>PROJECTION 3RD ANGLE</p>		<p>SHEET SIZE: A3</p>		<p>INV.</p>

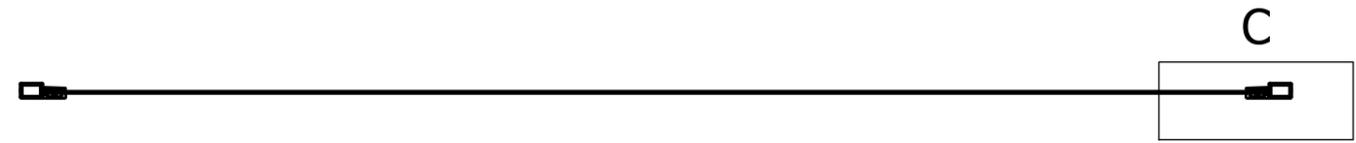
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1	REVISION HISTORY				
2					
3					

BILL OF MATERIALS

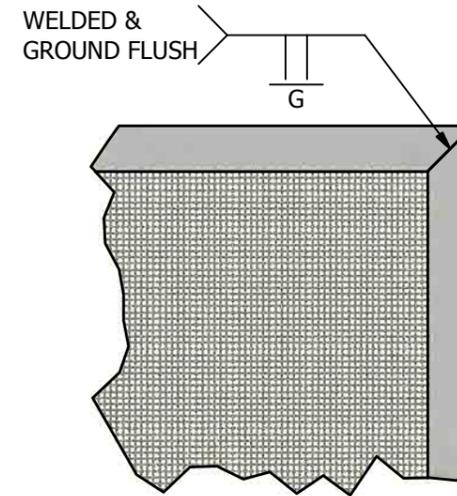
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1	4	FF 11mm - 5800mm	100005	Al 6060 T5		
2	4	FF Retainer 3000mm BLK	100089	R-PVC		
3	1	SS MESH 1200 X 2000MM BK	100026	SS, T316	1464	864



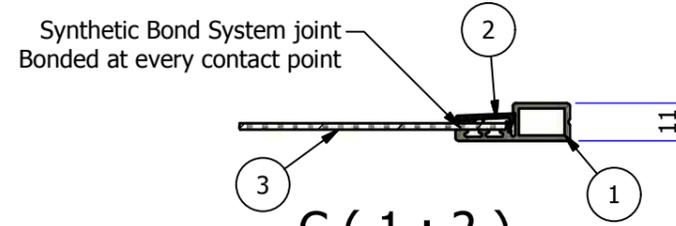
FRONT VIEW 1
(1 : 10)



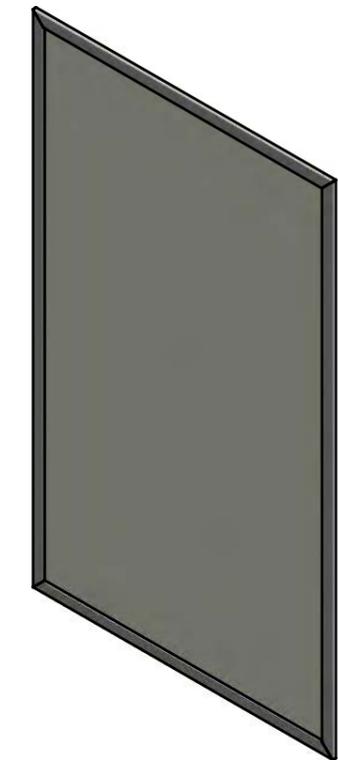
A-A (1 : 5)



B (1 : 5)



C (1 : 2)



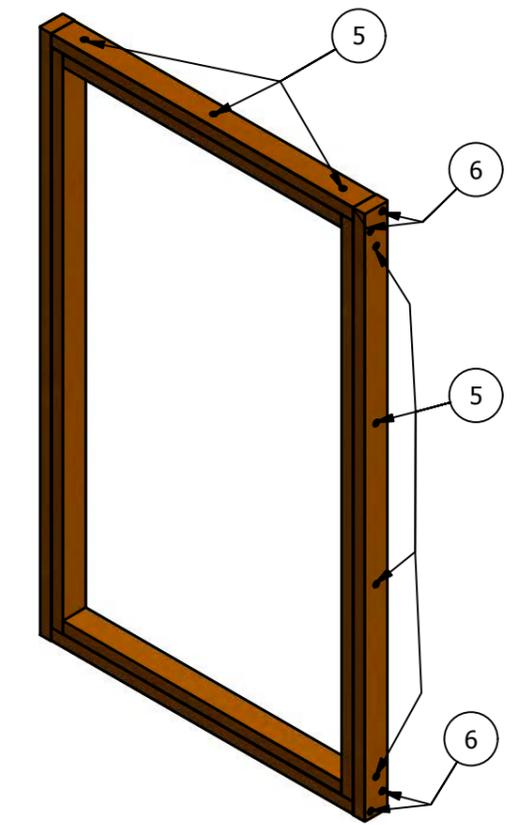
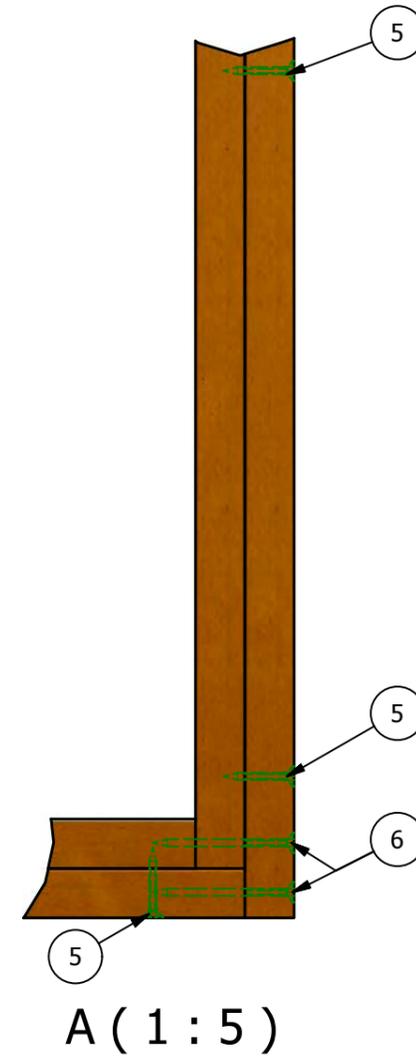
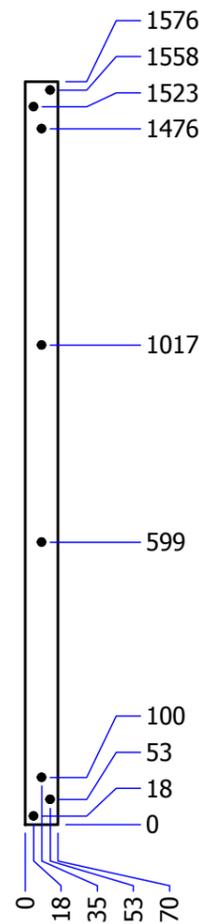
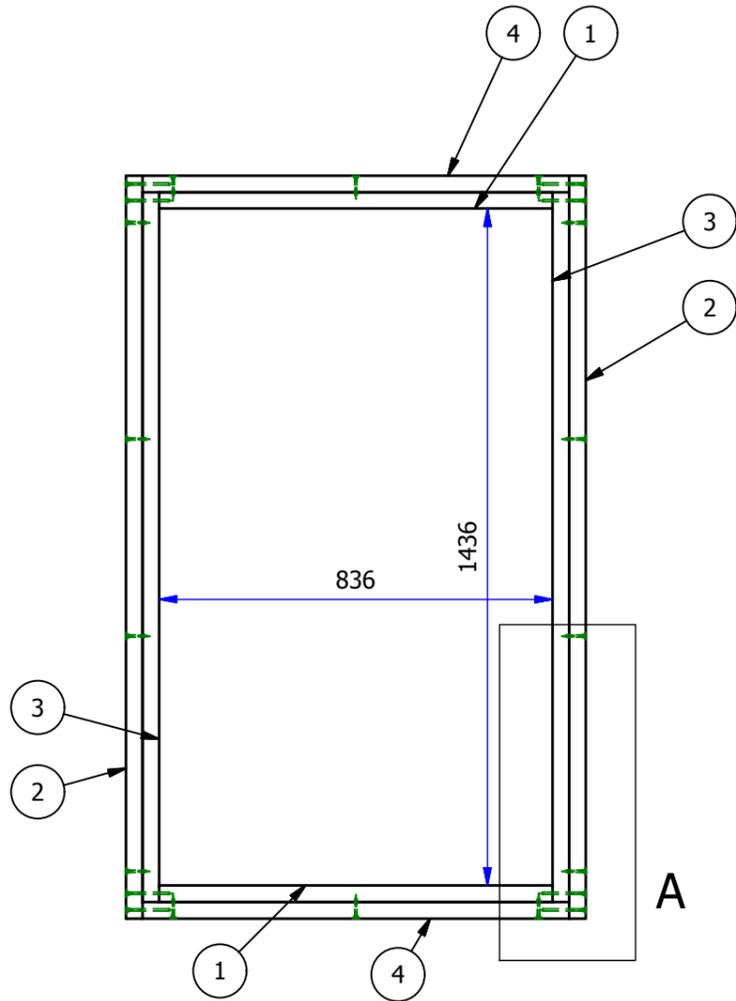
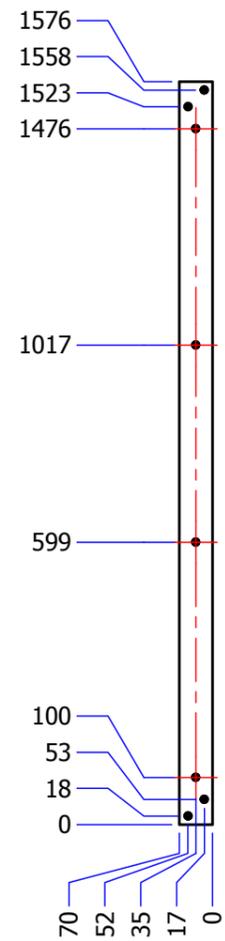
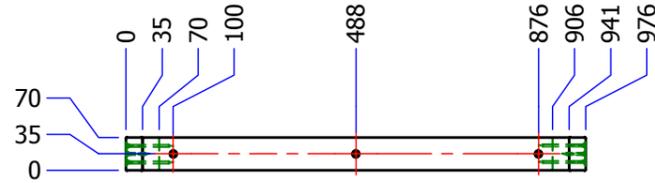
ISOMETRIC VIEW

<p>Prowler Proof</p> <p>GERSHWIN PTY LTD</p> <p>122 BUCHANAN RD</p> <p>BANYO, QLD. 4014</p> <p>PH: +61 7 3363 0666</p> <p>FAX: +61 7 3267 5411</p>	DRAWN	DATE	TITLE:	PROCESS CODE:
	CAD	21/11/2012	AS5039 - Testing	SHEET
	CHECKED	DATE	FF - ForceField Window	1 OF 1
	APPR.	DATE	PART NUMBER:	SCALE
		AS5039-FF FW2001	NTS	
RAW MATERIAL	MATERIAL THICKNESS	STOCK NUMBER / DESCRIPTION	REV.	
		AS5039-FF FW2001		
<p>* THIS DRAWING AND ITS CONTENTS ARE CONFIDENTIAL AND ARE SUBJECT TO RETURN ON DEMAND AND MAY NOT BE COPIED OR DISCLOSED TO ANY THIRD PARTY OR USED DIRECTLY OR INDIRECTLY FOR ANY OTHER PURPOSE THAN AS EXPRESSLY DETERMINED IN WRITING BY Gershwin Pty. Ltd.</p>		<p>UNLESS OTHERWISE SPECIFIED</p> <p>XX = ± 1mm MACHINE FINISHES = 3.2</p> <p>X.X = ± 0.5mm <math>\triangleleft = \pm 1^\circ</math></p> <p>XX.XX = ± 0.25mm</p>		<p>ALL DIMENSIONS IN MILLIMETERS</p> <p>ALL THREAD TO BE METRIC COARSE</p> <p>ALL WELDS TO AS1554</p> <p>ALL BURRS AND SHARP EDGES TO BE REMOVED</p>
<p>DO NOT SCALE DRAWING</p>		<p>WEIGHT: 2.29 kg</p>	<p>PROJECTION 3RD ANGLE</p>	<p>SHEET SIZE: A3</p>

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

BILL OF MATERIALS

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



FRONT VIEW 1
(1 : 15)

A (1 : 5)

ISOMETRIC VIEW

<p>Prowler Proof GERSHWIN PTY LTD 122 BUCHANAN RD BANYO, QLD. 4014 PH: +61 7 3363 0666 FAX: +61 7 3267 5411</p>	DRAWN CAD	DATE 21/11/2012	TITLE: AS5039 - Testing	PROCESS CODE:
	CHECKED	DATE	WINDOW TIMBER - TEST FRAME	SHEET 1 OF 1
	APPR.	DATE	PART NUMBER: AS5039-FF FW2004	SCALE NTS
	RAW MATERIAL	MATERIAL THICKNESS	STOCK NUMBER / DESCRIPTION AS5039-FF FW2004	REV.
<p>* THIS DRAWING AND ITS CONTENTS ARE CONFIDENTIAL AND ARE SUBJECT TO RETURN ON DEMAND AND MAY NOT BE COPIED OR DISCLOSED TO ANY THIRD PARTY OR USED DIRECTLY OR INDIRECTLY FOR ANY OTHER PURPOSE THAN AS EXPRESSLY DETERMINED IN WRITING BY Gershwin Pty. Ltd.</p>		<p>UNLESS OTHERWISE SPECIFIED XX = • 1mm X.X = • 0.5mm XX.XX = • 0.25mm</p> <p>MACHINE FINISHES = 3.2 = ± 1•</p>		<p>ALL DIMENSIONS IN MILLIMETERS ALL THREAD TO BE METRIC COARSE ALL WELDS TO AS1554 ALL BURRS AND SHARP EDGES TO BE REMOVED</p>
<p>DO NOT SCALE DRAWING</p>		<p>WEIGHT: 13.72 kg</p>	<p>PROJECTION 3RD ANGLE</p>	<p>SHEET SIZE: A3 INV.</p>

REV. No	REVISION DESCRIPTION	DRAWN	DATE	APP. BY	DATE
1	REVISION HISTORY				
2					
3					
4					
5					
6					

Knife Shear Test.

 Certificate No. 11-032-KS

 Page 1 of 1

 Model Number/Name: Fixed Window 11mm

 Report/Sample Number: KS11-030(0.8mm#316/ Gershwin)

 Manufactured By: Meshtec International

 Date of Test: 8-September-2011

Test method AS 5041

Tick box if ok

Pre-Test visual check



- to make sure regulator (2) seals are not broken
- force/ pressure apparatus (for two direction)

 Calibrated by: ACS

 %Humidity = 63 % (Less than 80%)

 Certificated No.: TH.AC./003-A-3

 Temp. = 24.9 °C At time = 8.25 AM

 Expiry dates: 25 May 2012

(23± 5°C for force gauge)

RESULTS

	Length of completed Penetration (mm)	New Blade used (Yes/No)
Test No 1	<u>3.10 mm (1 line)</u>	<u>Yes</u>
Test No 2	<u>3.07 mm (1 line)</u>	<u>Yes</u>
Test No 3	<u>3.10 mm (1 line)</u>	<u>Yes</u>

 Observations: Stroke No.1 wire penetration 3.10 mm. (1 line). Stroke No.2 wire penetration 3.07mm (1 line).
Stroke No.3 wire penetration 3.10 mm (1 line).
: Total wire penetration = 9.27 mm (3 lines)

 AS 5041 requires continuous penetration to be less than 150 mm after the third test. Uncertainty of test method = ± 0.110 mm [(Uncertainty of test method + Completed penetration after the third test) < 150mm]

PASS / ~~FAIL~~

To requirements of AS 5041

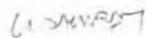
NOTE: Cross out whichever does not apply.

Jakkrit U.

Name of Examiner

Wichian K.

Approved By

 Signatory: 

 Signatory: 

- TLAS accredited testing laboratory No. 0243
- This Certificate is issued in accordance with the conditions of accreditations granted by the Thai Laboratory Accreditation Scheme which has assessed the measurement capability of the laboratory accredited for compliance with ISO 17025.
- This certificate may not be reproduced other than in full except with the prior written approval of the Meshtec International Laboratory.
- *This report is certified only on the sample tested.*



Product Information

No	Item	Method/ Specification
1	Mesh	Stainless steel mesh
2	Wire specs	High tensile stainless steel
3	Diameter	0.8 ± 0.015 mm
4	Alloy	Grade 316
5	Mpa	860-940 Mpa
6	Weave Type	Plain weave
7	Number of strands per inch / 25.4mms	11/10.5 per inch
8	Finish (Woven)	Wire Mesh (ISO9044/ASTM E2016-06)
9	Basic pre-treatment	Alkaline cleaning/Acid etching
10	Finish (powder coat) brand and type of powder	Interpon D610 (Akzo Nobel) , Polyester
11	Colour	Ultra Black Low Sheen
12	Testing	AS3715-2002,AAMA2603-05,AAMA2605-05
13	Internal testing on wire and finish	See the internal testing (second page)
14	External testing to relevant architectural standards	Salt Spary : 10 000 Hrs (Akzo Nobel)  Salt Spary : 10 000 Hrs (Akzo Nobel)
15	Knife shear test	AS5041-2003 Section 8.
16	Open Area Space Specification	42.5%



Internal Testing

Test Requirement

No	Test	Test Method	Specification
1.	Gloss at 60°	AAMA 2605-05 Section 7.2	Series 610 : 37+/-5
2.	Coating thickness	AS3715-2002 Section 2.5.3	Minimum coating thickness : 60 µm
3.	Impact Resistance	AAMA 2605-05 Section 7.5	No removal of film from substrate
4.	Indentation	AS3715-2002 Section 2.5.6	Buchholz > 80
5.	Adhesion	AAMA 2605-05 Section 7.4.1.1	No removal of film under the tape within or outside of the cross-hatched area or blistering anywhere.
6.	Bend Test	QUALICOAT Section 2.7	Bending around a 5 mm mandrel or an 8 mm mandrel. (Not show any sign of cracking or detachment)
7.	Polymerisation test	QUALICOAT Section 2.14	Cannot be scratched with a finger-nail.
8.	Resistance to boiling water	AAMA 2605-05 Section 7.4.1.3	No removal of film under the tape within or outside of the cross-hatched area or blistering anywhere.
9.	Color	AAMA 2605-05 Section 7.1	Color uniformity consistent with the color range
10.	Knife Shear Test	AS5041-2003 Section 8	Max 150 mms
12.	Tensile Test	ISO 682 1998,BS-EN 10002-1 2001	860-940 Mpa
13.	Chemical Composition	Alloy Testing	Determine alloy 316,304 etc.