

19 May 2014

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Project No. 1-Lo143.17
Lab Ref No. 001/14
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INTRUDER RESISTANCE TESTING

Client:

Viridian Glass Limited Partnership
Attention: Greg Yim

Client instructions:

Carry out testing to determine the resistance to attack properties of glass panels supplied by client following the method as described in AS 3555.1-2003
(Level 2 – two men using common hand tools.)

Test Methods:

The tools provided were, as shown below. The sledgehammer, prybar and axe did not weigh more than 3.6kg or were greater than 1.5m in length.
(as per AS 3555.1-2003, clause 1.4.2)



Test duration:

Target rating are shown for the individual tests carried out and range from 10 to 25 minutes or until failure, refer AS 3555 clause 2.2.1

Test Personnel:

Test personnel were separately sourced and were not employees of any of the companies involved.

Testing Facility:

The tests were conducted at the premises of Opus International Consultants Testing Laboratory at 7a Ride Way, Albany, on 14/05/14

Panel Dimensions:

Glass size	1038 x 1038
Edge cover	19mm
Daylight size	1000 x 1000mm

Findings:

Results of tested panels can be found in the appendixes listed below.

Appendix A

Panel 1 JailGuard 10 Target rating > 10 minutes

Appendix B

Panel 2 JailGuard 20 Target rating > 20 minutes

Reported By:

D Hotham
Assistant Laboratory Manager



Checked By:

B Richardson
Senior Technician

Date:

19/05/14

Appendix A

Panel 1 JailGuard 10 Target rating > 10 minutes

Glass Manufacturer	Viridian
Test Standard	AS3555.1 Level 2
Desired Result	10 minutes

Attackers Tasi & Jasmood



Panel 2 and attackers

The initial attack started slowly using a hammer and screwdriver. The attackers then changed to using the sledgehammer and the glazing tape used to fix the pane into the frame dislodged in the bottom fixing.

The attack continued using the axe. The intensity was slow to start but increased with time.

There was interchanging of attackers with both the sledgehammer and the axe. An attempt was made to cut the interlayer using a hammer and screwdriver. This was followed with a hard out attack with the axe followed by attempting to cut the interlayer with the axe.

The sledgehammer was then used to remove all of the glass to weaken the pane. The axe and crowbar were used and then tried again to cut the interlayer using a screwdriver and sharpened trowel.

After 10 minutes no penetration or opening was achieved.

Very high intensity testing then continued for an extra period of 3 minutes.
Still no penetration or opening could be achieved.

Therefore the rating on the JailGuard 10 Glass Panel was Level 2 (10+minutes)

Test Result	No Failure
Comment	-
Average Test Intensity	Medium to High
Rating achieved	Level 2 (10+ Minutes)

Appendix B

Panel 2 JailGuard 20 Target rating > 20 minutes

Glass Manufacturer	Viridian
Test Standard	AS3555.1 Level 2
Desired Result	20 minutes

Attackers Scott & Steveland



Panel 3 and attackers

The attackers started off using the back of the axe and attacking the top left hand corner of the pane. Attackers changed and the sledgehammer was used on the top right hand corner of the pane and the glazing tape used to fix the pane into the frame dislodged in these attack areas. (See photo on following page)

The attack then changed to the bottom corners.

An attempt was made using first off a screwdriver and then the crowbar to pry the pane from the frame, to no avail.

The attack continued using the sledgehammer and the axe and once again there was an attempt made using the crowbar to pry the pane from the frame, again to no avail.

An attempt was made using the hammer and screwdriver to break through the interlayer. No success so back to the sledgehammer and the axe.

Another attempt was made to pry the pane from the frame, again to no avail so back to the sledgehammer.

The axe was then used to remove all the glass from the pane along the bottom and sides. Again an attempt was made using the hammer and screwdriver to break through the interlayer. No success

Steveland was replaced by Opus employee Troy due to blisters.
The interlayer was attacked with cutters followed by the axe in the same area.



Attack on the top corners of the pane.

After 20 minutes no penetration or opening was achieved.

Therefore the rating on the JailGuard 20 Glass Panel was Level 2 (20+minutes)

Test Result	No Failure
Comment	-
Average Test Intensity	Very high
Rating achieved	Level 2 (20+ Minutes)

16 June 2014

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INTRUDER RESISTANCE TESTING - JAILGUARD 30

Client:

Viridian Glass Limited Partnership
Attention: Greg Yim

Client instructions:

Carry out testing to determine the resistance to attack properties of glass panels supplied by client following the method as described in AS 3555.1-2003
(Level 2 – two men using common hand tools.)

Test Methods:

The tools provided were, as shown below. The sledgehammer, prybar and axe did not weigh more than 3.6kg or were greater than 1.5m in length.
(as per AS 3555.1-2003, clause 1.4.2)



Test duration:

Target rating is shown for the test carried out, refer AS 3555 clause 2.2.1

Test Personnel:

Test personnel were separately sourced and were not employees of any of the companies involved.

Testing Facility:

The tests were conducted at the premises of Opus International Consultants Testing Laboratory at 7a Ride Way, Albany, on 12/06/14

Panel Dimensions:

Glass size	1038 x 1038
Edge cover	19mm
Daylight size	1000 x 1000mm

Findings:

Results and photographs of the tested panel can be found on the following pages 3 to 5.

Reported By:

D Hotham
Assistant Laboratory Manager



Checked By:

B Richardson
Senior Technician

Date:

16/06/14

JAILGUARD 30

Glass Manufacturer	Viridian
Test Standard	AS3555.1 Level 2
Target rating	> 30 minutes

Attackers	Michael & Pine
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Panel and attackers

The initial attack started with interchanging of attackers using the axe with a change to using the sledgehammer and the crowbar.
The attack was concentrated on the top right centre of the pane.

Damage (minor) to the interlayer was noticed by the attackers and they tried to cut the interlayer using a hammer and screwdriver in the same area.

This was unsuccessful and the attack then changed to using the axe – crowbar – axe – sledgehammer – axe still in the same area.

The attack then changed to a lower area in an attempt to remove all the glass.

After approx 16 minutes the glazing tape used to fix the pane into the frame dislodged in the bottom fixing area. The attack moved to the RHS and LHS where again the glazing tape was dislodged and at approx 20 minutes the pane started to move in the frame.

The axe and sledgehammer was then used to remove all of the glass around the outer edges of the pane.

As the pane became looser in the frame the crowbar followed by the hammer and screwdriver were used to try and prise the pane from the frame. This was unsuccessful and there was interchanging of attackers with both the sledgehammer and the axe.

After 30 minutes no penetration or opening was achieved.

Therefore the rating on the JailGuard 30 Glass Panel was Level 2 (30+minutes)



Initial attack was concentrated on the top right centre of the pane.



Pane after 30minutes showing no penetration or opening

Test Result
Comment
Average Test Intensity
Rating achieved

No Failure
-
High to very high
Level 2 (30+ Minutes)