

Ballistic Testing Services

Report Number: BTR-06-14-2021-Sample 2

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Name: Safe Haven Defense Inc.Address: 3120 W Carefree Hwy, Suite 1-543, Phoenix, AZ 85086Phone: Phone: 480-689-7871Report Date: June 14, 2021Contact: Steven JohnsonEmail: steve@myshsinc.com

Ballistic Results

Project Summary

Type of Products to be tested: Single Pane Security Glazings
 Test Specimen Sample size(s): 21 x 21 x 3.5 in. (18 x 18 in.)
 Number of test specimens: 2 Samples
 Weight of all samples: 45.4 lbs
 Are Materials a Health Hazard: No
 Need the Tests performed by: June 17, 2021
 Need products shipped back: No
 Purchase Order Number: Not Applicable

International Ballistic Standards / Specifications Testing

☐ ASTM ☐ Canadian ☐ FRA ☒ NIJ ☐ CFR Pass All
☐ Australian ☐ EN1063 ☐ Germ DIN ☐ State Dept ☐ CFR SYA
☐ British ☐ EN1522/23 ☐ MIL-SAMIT ☐ UL 752 ☐ Other

Test Standard: National Institute of Justice 0108.01Particular Test: NIJ II Part 2 (.357 Magnum JSP)Velocity Range: 1,345 to 1,445 ft/sShots: 5 shotsShot Pattern: > 2 inch

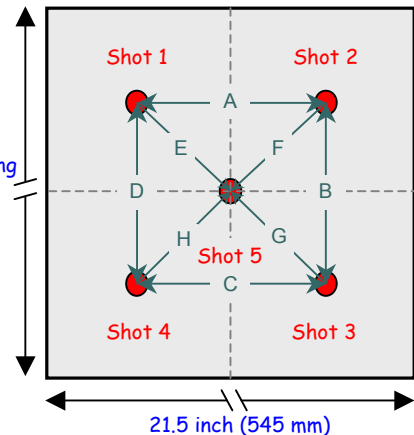
Test Results

Test Sample: Sample 2
 Item / Part Number: 2 / 18-3-8-Film-2
 Sample ID: 18x18-DF-3/8G
 Description: Framed Bullet Resistant Glazing with 18 x 18 x 1/2 inch glazing
 Sample Size: 21.3 x 21.5 inch (540 x 545 mm)
 Thickness: 3.7 inch (94 mm)
 Weight: 22.0 lbs (10.0 kg)
 Weapon Type: .357 Magnum
 Cartridge / Projectile Type: .357 Magnum JSP
 Projectile Weight: 158 grains
 Target Distance: 16.4 feet
 Number of Shots: 5 shots

Shot Sequence:	Shot 1	Shot 2	Shot 3	Shot 4	Shot 5
Impact Velocity (ft/sec) *:	1,390	1,382	1,403	1,397	1,388
Impact Energy (ft-lbs):	678	670	690	685	676
Impact Momentum (lb-sec.):	0.98	0.97	0.98	0.98	0.97
Impact Angle (degrees):	0°	0°	0°	0°	0°
Sample Penetration:	NP	NP	NP	NP	CP
Witness Plate Penetration:	NP	NP	NP	NP	NP

Witness Plate & Spall Result:

Witness plate material: 0.020 in. type 2024-T4 Aluminum foil alloy
 Spall catch box: Not required
 Witness / Box Distance: 6.0 inches
 Spall Occurrence: Spall occurred
 Test Temperature: 75° F
 Test Date: June 14, 2021
 Pass / Fail Results: Passed the Test
 Comments: The 1/2 inch glazing is composed of a 3/8 inch glass with film on both sides.



Impact Spacing	(inches)	
A	6.10	Average
B	5.80	
C	5.60	
D	5.80	
E	3.80	Average
F	4.10	
G	4.00	
H	4.00	

NP = No Penetration
 PP = Partial Penetration
 CP = Complete Penetration
 N/A = Not Applicable

Footnotes

* Velocity measurements were taken at a distance of 6.6 feet from muzzle.

Test and Report Engineers

Tested and Reported by: Sam RahebSignature: *Sam Raheb*Date: June 14, 2021

Name: Safe Haven Defense Inc.

Report Date: June 14, 2021

Ballistic Test Results and Photographs**Ballistic Test Results:**

Test Sample 2 passed the National Institute of Justice 0108.01 NIJ II Part 2 (.357 Magnum JSP) Ballistic test. There was complete penetration of the test sample from 1 of the .357 Magnum JSP caliber projectiles (shot #5).

According to the NIJ 0108.01 Ballistic Standard, a test sample is considered a Pass even if the projectile completely penetrates the test sample but does not perforate the witness plate when observed via a 60 watt light bulb.

As stated in the NIJ 0108.01 document for determining perforation:

Perforation of a witness plate by any part of the test specimen or test bullet, as determined by passage of light when held up to a 60-W light bulb.

Witness Plate and Spall Effects:

Spall occurred but no perforation to the 0.020 in. type 2024-T4 Aluminum foil alloy witness plate was observed.

Photographs

The following photographs show both the pre and post-test sample. Additional larger sized photographs are included with this report.

Sample 2: 18x18-DF-3/8G - NIJ II Part 2 (.357 Magnum) - 21.26 x 21.46 x 3.70 in.

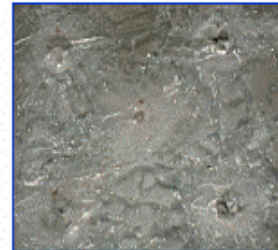
Sample 2 Pre Test Impact Side



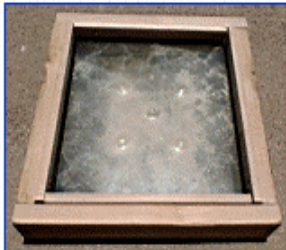
Sample 2 Pre Test Rear Side



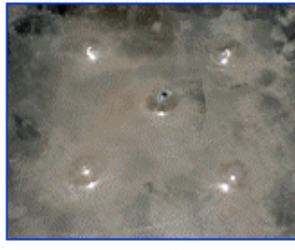
Sample 2 Post Test Impact Side



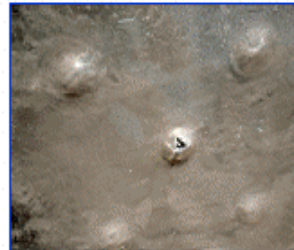
Sample 2 Post Test Impact Side



Sample 2 Post Test Rear Side



Sample 2 Post Test Rear Side



Sample 2 Post Test Rear Side



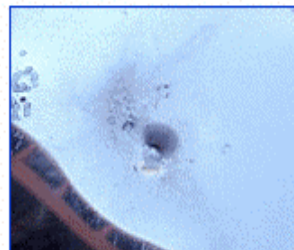
Sample 2 Post Test Rear Side



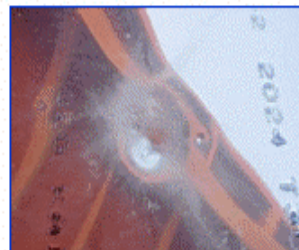
Sample 2 Post Test Rear Side



Sample 2 Post Test Witness Plate



Sample 2 Post Test Witness Plate



Sample 2 Post Test Witness Plate

Test and Report Engineers

Tested and Reported by: Sam Raheb

Signature:

Date: June 14, 2021