

H.P. White Laboratory, Inc.

An Intertek Company

Ballistic Resistance – Test Report

| Client: | Impact Security Attention: Ian Bannister 4939 Lower Roswell Rd. Bldg. B, Suite 100 Marietta, GA 30068 | | | | |
|--|--|--|--|--|--|
| Report date: | 28 June 2017 | | | | |
| Job number: | 000007349B | | | | |
| Test procedure and supporting documentation: | Per Customer Instructions ANSI/UL-752 | | | | |
| Sample receipt, identification information, and disposition: | The sample(s) were received on 26 June 2017 . Sample item identification and description details are provided on the attached data record(s). The test sample(s) were inspected prior to testing and no anomalies were discovered. Sample(s) will be returned, discarded, or held, per customer instructions. | | | | |
| Test date(s) and location: | Testing commenced on 27 June 2017 , at the H.P. White Laboratory, Inc. facilities located at 3114 Scarboro Road, Street, Maryland. Testing concluded on 27 June 2017 . | | | | |
| Report prepared by: | Ashley Gowland, Customer Operations Coordinator | | | | |
| Report reviewed by: | Wesley Mason, Manager of Technical Operations - Hard Armor | | | | |
| Revision number and date: | NA | | | | |
| Test data transmittal method and storage location: | This test report and test data were transmitted via email in a manner compliant with ISO 17025 requirements. Permanent electronic and hardcopy files are maintained in accordance with HPWLI data storage policy on data storage systems, filed by job number. | | | | |
| Disclaimer: | Testing was performed on sample(s) provided by the client. H.P. White Laboratory, Inc. holds no responsibility for sample selection methods. This report is based on data obtained from testing only the sample(s) submitted, and should NOT be interpreted as an endorsement by H.P. White Laboratory, Inc. of the continuing quality or performance of any other items of the same, or similar, design. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government. This testing was performed by H.P. White Laboratory, Inc. to client specification, and the test results are the property of the client, who holds all rights of reproduction or publication of this report and related test data. | | | | |
| Destination control statement: | These items are controlled by the U.S. government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of, to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. government or as otherwise authorized by U.S. law and regulations. | | | | |

ISO-5.10-FR15.04

Test Procedures

Ballistic Testing: All testing was conducted on an indoor range at ambient conditions, in accordance with your instructions and the modified provisions of ANSI/UL-752, Level 3. Testing was conducted using caliber .44 Magnum, LWC, 240 grain ammunition. The test sample(s) were positioned 15.0 feet from the muzzle of the barrel to produce zero (0°) degree obliquity impacts. Photoelectric infrared screens were located at 5.0 feet and 10.0 feet which, in conjunction with electronic chronographs, were used to compute bullet velocities at 7.5 feet forward of the muzzle. Penetrations were determined by visual examination of the 1/8-inch-thick corrugated cardboard witness plate, placed 18.0 inches behind and parallel to the test sample(s). Table I provides a summary of information on the attached data record(s).

| Test Sample | | | Set-Up | | | Results | | |
|---|------------------------|------------------|---------------|-----------|--------------|---------------------------|--------------|--|
| Sample No. | Thickness (in.) (a) | Weight (lbs.) | Caliber | Obliquity | Shots (b) | Velocity (fps) Max/Min | Penetrations | |
| SAMPLE-2 | NA | 30.14 | .44 MAGNUM | 0° | 3 | 1419/1403 | 0 | |
| (a) Average of thickness measurements (b) Shot spacing: 3 shots on 4" triangle (c) See individual data record(s) for specific footnotes/remarks | | | | | | | | |

Table I: Ballistic Resistance, Summary of Results

Report prepared by:

Ashley Gowland

Ashley Gowland Customer Operations Coordinator

Report reviewed by:

Wesley Mason Manager of Technical Operations - Hard Armor

H.P. White Laboratory, Inc. BALLISTIC RESISTANCE TEST

Job No. : 000007349 Test Date : 6/27/17

Date Rec'd. : 6/26/17 Via : Returned :

Range No.: 7

Temp. : 72 F BP : 30 in. Hg

RH : 60%

Barrel No./Gun : R7/ 44 MAG Gunner : CHES

Recorder : BONSALL

TEST PANEL

| Manufacturer : WINDOW FRAME DEPOT | Sample No. : SAMPLE- 2 | | | |
|---|------------------------|--|--|--|
| ^{Size :} 16 x 16 x 4.5 in frame in. | Weight : 30.14 lbs. | | | |
| Thicknesses : NA | Hardness : NA | | | |
| Avg. Thick. : NA | Plies/Laminates : NA | | | |
| Description : FABRICATED BALLISTIC GLAZING ASSEMBLY | | | | |

SET-UP

| Shot Spacing : 3 SHOTS ON 4" TRIANGLE | Primary Vel. Location : 7.5 ft. From Muzzle |
|---|---|
| Witness Panel : 1/8" CORRUGATED CARDBOARD | Residual Vel. Screens : NA |
| Obliquity : 0 deg. | Residual Vel. Location : NA |
| Backing Material : NA | Range to Target : 15.0 ft. |
| Conditioning : AMBIENT | Target to Wit. : 18.0 in. |
| | |

AMMUNITION

| ^{(1):} .44 Magnum, LWC, 240 gr. | Lot No. : B44243 |
|--|------------------|
| (2): | Lot No. : |
| (3): | Lot No. : |
| (4): | Lot No. : |

APPLICABLE STANDARDS OR PROCEDURES

(1): Bullet Resistant Equipment, ANSI/UL 752-2005 (MODIFIED)

(2): Indoor, Non-Metallic, Protection Level 3 (.44, 1350-1485 fps.)

(3):

| Shot No. | Ammo. | Time 1 (usec) | Velocity 1 (ft/s) | Time 2 (usec) | Velocity 2 (ft/s) | Avg. Vel. (ft/s) | Penetration | Footnotes |
|--------------------|--------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|----------------------|-----------|
| No. 1 2 3 | 1 1 1 | (usec) 3550 3522 3565 | (ft/s) 1408 1420 1403 | (usec) 3553 3526 3565 | (ft/s) 1407 1418 1403 | (ft/s) 1408 1419 1403 | None None None | |
| REMA | ARKS : | | | | | OOTNOTES | <u>.</u> | |
| | | | | | | | | |

Primary Vel. Screens : 5.0 ft., 10.0 ft.