

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:	000007349A			
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 a description details are provided on the attached data record(s). The test sample(s) we inspected prior to testing and no anomalies were discovered. Sample(s) will 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

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Test Procedures

Ballistic Testing: All testing was conducted on an indoor range at ambient conditions, in accordance with your instructions and the general 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 obliguity 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).

Table I: Ballistic Resistance, Summary of Results **Test Sample** Set-Up Results Thickness Weight Shots Velocity (fps) Sample No. Caliber Obliquity Penetrations Max/Min (in.) (a) (lbs.) (b) .44 0° SAMPLE-1 NA 28.28 3 1440/1410 MAGNUM (a) Average of thickness measurements (b) Shot spacing: 3 shots on 4" triangle

Report prepared by:

(c)

Ashley Gowland

See individual data record(s) for specific footnotes/remarks

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

TEST PANEL

Manufacturer : WINDOW FRAME DEPOT	Sample No. : SAMPLE- 1			
^{Size :} 16 x 16 x 4.5 in frame in.	Weight : 28.28 lbs.			
Thicknesses : NA	Hardness : NA			
Avg. Thick. : NA	Plies/Laminates : NA			
Description : FABRICATED BALLISTIC GLAZING ASSEMBLY				

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

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
- (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
1 2 3	1 1 1	3471 3511 3543	velocity 1 (ft/s) 1441 1424 1411	3475 3515 3547	1439 1422 1410	Avg. vel. (ft/s) 1440 1423 1410	None None None None	Pootholes
REMA	ARKS :				<u> </u>	OOTNOTES	<u>.</u>	

Range No. : 7 Temp. : 72 F BP : 30 in. Hg RH : 60% Barrel No./Gun : R7/ 44 MAG Gunner : CHES Recorder : BONSALL