



NIJ-STD-0108.01, Level I – Test Report

Client:	Ku Casa Company Inc. Attention: Jason Hsu 1F., NO. 47-2, SEC.5, Roosevelt Rd. Wenshan Dist. Taipei City, Taiwan (R.O.C.) 116
Report date:	26 October 2017
Job number:	000007468A
Test procedure and supporting documentation:	P.O. # KGM001 NIJ-STD-0108.01, Level I
Sample receipt, identification information, and disposition:	The sample(s) were received on 12 October 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 24 October 2017 , at the H.P. White Laboratory, Inc. facilities located at 3114 Scarboro Road, Street, Maryland. Testing concluded on 24 October 2017 .
Report prepared by:	Tiffany Haines, Customer Operations Specialist
Report reviewed by:	Wesley Mason, Manager of Technical Operations - Hard Armor
Revision number and date:	NA
Supplement to report:	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.

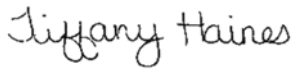
Test Procedures

Ballistic Resistance Testing: All testing was conducted on an indoor range at ambient conditions, in accordance with your instructions and the general provisions of NIJ-STD-0108.01, Level I. Testing was conducted using caliber .22, 40 gr., LRHV; .38 SPECIAL, 158gr., LRN; ammunition. The test sample(s) were positioned 16.5 feet from the muzzle of the barrel to produce zero (0°) degree obliquity impacts. Photoelectric infrared screens were located at 6.5 feet and 9.5 feet which, in conjunction with electronic chronographs, were used to compute bullet velocities at 8.0 feet forward of the muzzle. Penetrations were determined by visual examination of the 0.020-inch-thick 2024-T3 aluminum alloy witness plate, placed 6.0 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		
Sample No.	Thickness (in.) (a)	Weight (lbs.)	Caliber	Obliquity	Shots (b)	Velocity (fps)		Penetrations
						Max	Min	
SAMPLE-MK1 (.22)	0.611	10.80	.22, LRHV	0°	5	1020	1010	0
SAMPLE-MK1 (38 SPECIAL)	0.614	10.82	.38, LRN	0°	5	877	845	0
(a) Average of four (4) thickness measurements (b) Shot spacing: 4 ON 8" SQUARE-1 in center (c) See individual data record(s) for specific footnotes/remarks								

Report prepared by:



Tiffany Haines
 Customer Operations Specialist

Report reviewed by:



Wesley Mason
 Manager of Technical Operations – Hard Armor



H.P. White Laboratory, Inc.

BALLISTIC RESISTANCE TEST

Client : 6811:YUSHI GLASS

Job No. : 000007468 Test Date : 10/24/17

TEST PANEL

Manufacturer : YUSHI GLASS

Size : 16 X 16 in.

Thicknesses : 0.610, 0.611, 0.612, 0.612 in.

Avg. Thick : 0.611 in.

Description : TRANSPARENT ARMOR

Sample No. : SAMPLE-MK1 (.22)

Weight : 10.80 lbs.

Hardness : NA

Plies/Laminates : NA

Date Rec'd. : 10/12/17

Via :

Returned :

SET-UP

Shot Spacing : 4 ON 8" SQUARE - 1 IN CENTER

Witness Panel : 0.020", 2024-T3 ALUMINUM

Obliquity : 0 deg.

Backing Material : NA

Conditioning : AMBIENT

Primary Vel. Screens : 6.5 ft., 9.5 ft.

Primary Vel. Location : 8.0 ft. From Muzzle

Residual Vel. Screens : NA

Residual Vel. Location : NA

Range to Target : 16.5 ft.

Target to Wit. : 6.0 in.

Range No. : 3

Temp. : 72 F

BP : 29.80 in. Hg

RH : 50%

Barrel No./Gun : R3/ .22 LR

Gunner : CHES

Recorder : BONSALL

AMMUNITION

(1) : .22 LRHV, 40 gr.

(2) :

(3) :

(4) :

Lot No. : HPW-2036

Lot No. :

Lot No. :

Lot No. :

APPLICABLE STANDARDS OR PROCEDURES

(1) : NIJ-STD-0108.01

(2) : LEVEL I

(3) : REQUIRED VELOCITY: 1010-1090 FPS.

Shot No.	Ammo.	Time 1 (usec)	Velocity 1 (ft/s)	Time 2 (usec)	Velocity 2 (ft/s)	Avg. Vel. (ft/s)	Penetration	Footnotes
1	1	2964	1012	2964	1012	1012	None	
2	1	2946	1018	2946	1018	1018	None	
3	1	2942	1020	2942	1020	1020	None	
4	1	2964	1012	2964	1012	1012	None	
5	1	2970	1010	2970	1010	1010	None	

REMARKS :

FOOTNOTES :



H.P. White Laboratory, Inc.

BALLISTIC RESISTANCE TEST

Client : 6811:YUSHI GLASS

Job No. : 000007468 Test Date : 10/24/17

TEST PANEL

Manufacturer : YUSHI GLASS

Size : 16 X 16 in.

Thicknesses : 0.613, 0.613, 0.614, 0.614 in.

Avg. Thick : 0.614 in.

Description : TRANSPARENT ARMOR

Sample No. : SAMPLE-MK1 (38 SPECIAL)

Weight : 10.82 lbs.

Hardness : NA

Plies/Laminates : NA

Date Rec'd. : 10/12/17

Via :

Returned :

SET-UP

Shot Spacing : 4 ON 8" SQUARE - 1 IN CENTER

Witness Panel : 0.020", 2024-T3 ALUMINUM

Obliquity : 0 deg.

Backing Material : NA

Conditioning : AMBIENT

Primary Vel. Screens : 6.5 ft., 9.5 ft.

Primary Vel. Location : 8.0 ft. From Muzzle

Residual Vel. Screens : NA

Residual Vel. Location : NA

Range to Target : 16.5 ft.

Target to Wit. : 6.0 in.

Range No. : 3

Temp. : 72 F

BP : 29.80 in. Hg

RH : 50%

Barrel No./Gun : R3/ .38 SPECIAL

Gunner : CHES

Recorder : BONSALL

AMMUNITION

(1) : .38 SPECIAL, LRN, 158 gr.

(2) :

(3) :

(4) :

Lot No. : HPW-0165

Lot No. :

Lot No. :

Lot No. :

APPLICABLE STANDARDS OR PROCEDURES

(1) : NIJ-STD-0108.01

(2) : LEVEL I

(3) : REQUIRED VELOCITY: 800-900 FPS.

Shot No.	Ammo.	Time 1 (usec)	Velocity 1 (ft/s)	Time 2 (usec)	Velocity 2 (ft/s)	Avg. Vel. (ft/s)	Penetration	Footnotes
1	1	3419	877	3428	875	876	None	
2	1	3419	877	3424	876	877	None	
3	1	3486	861	3486	861	861	None	
4	1	3423	876	3430	875	876	None	
5	1	3549	845	3549	845	845	None	

<u>REMARKS :</u>	<u>FOOTNOTES :</u>