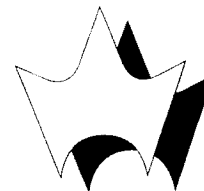


H.P. WHITE LABORATORY, INC.

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18 June 2010
(HPWLI 11562-01B)
(Revised 30 June 2010)

Tianjin Armorus Textiles Co. Ltd.
19 East of Dongmaquan
Dongmaquan D, Wuqing Dist.
Tianjin, China

Attention: Jason Cao

Gentlemen:

In accordance with your instructions, H.P. White Laboratory, Inc. conducted ballistic resistance testing of two helmet samples, identified as Models TAT-BH-1 and TAT-BH-5, received 1 June 2010 via Federal Express.

Testing was conducted in accordance with your instructions, and the modified provisions of NIJ-STD-0106.01, BALLISTIC HELMETS, dated December 1981, using caliber .44 Magnum, 240 grain, SWCGC and 9mm Luger, 124 grain, FMJ ammunition. The range of fair projectile velocities for this ammunition was that specified in NIJ-STD-0108.01, Level IIIA. The test samples were mounted on a penetration headform positioned 16.5 feet from the muzzle of a test barrel to produce zero degree obliquity impacts with respect to the normal to the tangent of the helmet curvature at the point of impact. Velocity screens were positioned at 6.5 and 9.5 feet which, in conjunction with elapsed time counters (chronographs), were used to compute projectile velocities 8.0 feet from the muzzle. Penetrations were determined by visual examination of a 0.020-inch thick sheet of alloy 2024T3 aluminum positioned 5.0 inches behind the interior surface of the helmet. Table I presents a summary of the attached data records.

TABLE I. SUMMARY OF RESULTS

Test Sample			Ballistic Threat			Results
Number	Weight (lb)	Thickness (in) (a)	Caliber	Shots (b)	Velocity(fps) Max. Min	Penetrations
TAT-BH-1	3.28	0.418	.44 Magnum	4	1443 1351	0
TAT-BH-5	3.17	0.352	9mm Luger	4	1472 1397	0

(a) Average of four area thicknesses.
(b) See enclosed data records for impact location.

This report is based on data obtained from having tested only the samples 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.

The test samples are being returned via Federal Express. Should you have any questions regarding this matter, or if we may be of any further service, please do not hesitate to contact us.

Very truly yours,

H.P. White Laboratory, Inc.

Craig B. Dunn

CBD/tc
Enclosures



H.P. White Laboratory, Inc.

BALLISTIC RESISTANCE TEST

Client : Tianjin Armorus Textiles Co. Ltd. (China)

Job No. : 11562-01

Test Date : 6/10/10

TEST PANEL

Manufacturer : Tianjin Armorus Textiles Co. Ltd. (China)

Sample No. : TAT-BH-1

Size : UNKNOWN in.

Weight : 3.28 lbs.

Date Rec'd. : 6/01/10

Thicknesses : 0.401, 0.414, 0.428, 0.430 in.

Hardness : NA

Via : Federal Express

Avg. Thick. : 0.418 in.

Plies/Laminates : NA

Returned : Federal Express

Description : RIGID WOVEN POLYETHYLENE FIBER IN MATRIX.

HELMET SERIAL#: TAT-BH-1

SET-UP

Shot Spacing : PER-NIJ-STD-0106.01

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

Range No. : 5

Witness Panel : 0.020", 2024-T3 ALUMINUM

Primary Vel. Location : 8.0 ft. From Muzzle

Temp. : 72 F

Obliquity : 0 deg.

Residual Vel. Screens : NA

BP : 29.61 in. Hg

Backing Material : NA

Residual Vel. Location : NA

RH : 67%

Conditioning : AMBIENT

Range to Target : 16.5 ft.

Barrel No./Gun : 44 MAG/9mm-R5

Target to Wit. : 5.0 in.

Gunner : UNGER

Recorder : PRATT

AMMUNITION

(1) : 9mm, FMJ, 124 gr.

Lot No. : REMINGTON 23558

(2) : 44 MAGNUM, SWCGC, 240 gr.

Lot No. : PMC-B44243

(3) :

Lot No. :

(4) :

Lot No. :

APPLICABLE STANDARDS OR PROCEDURES

(1) : NIJ-STD-0106.01 (MODIFIED)

(2) : REQUIRED VELOCITY: 1350-1450 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	1	2168	1384	2177	1378	1381	None	(a)
2	2	2221	1351	2221	1351	1351	None	(b)
3	1	2129	1409	2136	1404	1407	None	(c)
4	2	2079	1443	2080	1442	1443	None	(d)

REMARKS :

FOOTNOTES :

- (a) SHOT IMPACTED ON FRONT OF HELMET.
- (b) SHOT IMPACTED ON BACK OF HELMET.
- (c) SHOT IMPACTED ON RIGHT SIDE OF HELMET.
- (d) SHOT IMPACTED ON LEFT SIDE OF HELMET.



H.P. White Laboratory, Inc.

BALLISTIC RESISTANCE TEST

Client : Tianjin Armorus Textiles Co. Ltd. (China)

Job No. : 11562-01

Test Date : 6/10/10

TEST PANEL

Manufacturer : Tianjin Armorus Textiles Co. Ltd. (China)

Size : UNKNOWN in.

Thicknesses : 0.352, 0.346, 0.349, 0.360 in.

Avg. Thick. : 0.352 in.

Description : RIGID WOVEN ARAMID FILM IN MATRIX.

HELMET SERIAL#: TAT-BH-5

Sample No. : TAT-BH-5

Weight : 3.17 lbs.

Hardness : NA

Plies/Laminates : NA

Date Rec'd : 6/01/10

Via : Federal Express

Returned : Federal Express

SET-UP

Shot Spacing : PER-NIJ-STD-0106.01

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. : 5.0 in.

Range No. : 5

Temp. : 72 F

BP : 29.61 in. Hg

RH : 67%

Barrel No./Gun : 44 MAG/9mm-R5

Gunner : UNGER

Recorder : PRATT

AMMUNITION

(1) : 9mm, FMJ, 124 gr.

(2) : 44 MAGNUM, SWCGC, 240 gr.

(3) :

(4) :

Lot No. : REMINGTON 23558

Lot No. : PMC-B44243

Lot No. :

Lot No. :

APPLICABLE STANDARDS OR PROCEDURES

(1) : NIJ-STD-0106.01 (MODIFIED)

(2) : REQUIRED VELOCITY: 1350-1450 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	2038	1472	2039	1471	1472	None	(a)
2	1	2143	1400	2151	1395	1397	None	(b)
3	2	2119	1416	2120	1415	1415	None	(c)
4	1	2143	1400	2145	1399	1399	None	(d)

REMARKS :

FOOTNOTES :

- (a) SHOT IMPACTED ON FRONT OF HELMET.
- (b) SHOT IMPACTED ON BACK OF HELMET.
- (c) SHOT IMPACTED ON RIGHT SIDE OF HELMET.
- (d) SHOT IMPACTED ON LEFT SIDE OF HELMET.