

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC
Project No.: OH000004170-1
Test Date: 08/22/2022
Page 1 of 1

Test Panel Description: Level III Ballistic Shield

Manufacturer: Hardwire, LLC

Sample No.: (MSC, V0) SR22-038159

Size: 20.50 x 30.50 in
Avg. Thickness: 0.775 in
Thicknesses: 0.770 in, 0.780 in,
0.760 in, 0.790 in

Weight: 25.810 lbs
Plies/Laminates: N/A

Date Received: 08/22/2022
Received Via: Hand Carried
Returned Via: Hand Carried

Setup

Shot Spacing: NIJ-STD-0108.01
Level III
Witness Panel: 0.02 in 2024-T3
Aluminum
Backing Material: N/A
Condition: Ambient

Primary Vel. Screens (ft): 6.500, 9.500
Primary Vel. Location (ft): 8.000
Range to Target (ft): 50.000
Target to Witness (in): 6.000

Range No.: Range 6
Temp: 64.2 °F
BP: 29.8 inHg
RH: 50.4 %
Barrel/Gun: WC067279
Gunner: Cody Schilling
Recorder: William Ellis

Ammunition

Projectile	Lot No.	Manufacturer	Powder
(1) 7.62 x 39-mm, 123-grain MSC	76-75-31	Chinese	N 110

Applicable Standards or Procedures

- (1) NIJ-STD-0108.01 Level III (Modified)
(2) Customer Request

Shot No.	Ammo	Powder/ Seating	Weight (gr)	Time 1 (µs)	Vel. 1 (ft/s)	Time 2 (µs)	Vel. 2 (ft/s)	Avg. Vel. (ft/s)	Penetration	Obliq. (°)	Footnotes
1	1	19.8	122.0	1266	2370	1266	2370	2370	None	0.0	(a)
2	1	19.6	122.1	1271	2360	1271	2360	2360	None	0.0	(b)
3	1	19.6	122.1	1288	2329	1285	2335	2332	None	0.0	(c)
4	1	19.6	122.1	1273	2357	1271	2360	2358	None	0.0	(d)
5	1	19.6	122.2	1288	2329	1285	2335	2332	None	0.0	(e)

Remarks:

Required Velocity: 2340 ± 30 ft/s
Projectile yaw check: 0° yaw on all shots.

Footnotes:

- (a) left center handle bolt
(b) right center shield
(c) left center shield
(d) right bottom shield
(e) left bottom shield

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC
Project No.: OH000004170-2
Test Date: 08/22/2022
Page 1 of 1

Test Panel Description: Level III Ballistic Shield

Manufacturer: Hardwire, LLC

Sample No.: (M80, V0) SR22-038159

Size: 20.50 x 30.50 in
Avg. Thickness: 0.775 in
Thicknesses: 0.760 in, 0.770 in,
0.780 in, 0.790 in

Weight: 25.810 lbs
Plies/Laminates: N/A

Date Received: 08/22/2022
Received Via: Hand Carried
Returned Via: Hand Carried

Setup

Shot Spacing: NIJ-STD-0108.01
Level III
Witness Panel: 0.02 in 2024-T3
Aluminum
Backing Material: N/A
Condition: Ambient

Primary Vel. Screens (ft): 6.500, 9.500
Primary Vel. Location (ft): 8.000
Range to Target (ft): 50.000
Target to Witness (in): 6.000

Range No.: Range 6
Temp: 63.9 °F
BP: 29.8 inHg
RH: 49.6 %
Barrel/Gun: WC060441
Gunner: Cody Schilling
Recorder: William Ellis

Ammunition

Projectile	Lot No.	Manufacturer	Powder
(1) 7.62 x 51-mm, 149-grain M80 FMJ	LC/14	Military	N133

Applicable Standards or Procedures

- (1) NIJ-STD-0108.01 Level III (Modified)
(2) Customer Request

Shot No.	Ammo	Powder/ Seating	Weight (gr)	Time 1 (µs)	Vel. 1 (ft/s)	Time 2 (µs)	Vel. 2 (ft/s)	Avg. Vel. (ft/s)	Penetration	Obliq. (°)	Footnotes
1	1	38.8	147.8	1080	2778	1078	2783	2780	None	0.0	(a)
2	1	38.8	147.8	1085	2765	1083	2770	2768	None	0.0	(b)
3	1	38.8	147.9	1073	2796	1071	2801	2799	None	0.0	(c)
4	1	38.8	148.0	1078	2783	1078	2783	2783	None	0.0	(d)
5	1	38.8	148.0	1083	2770	1083	2770	2770	None	0.0	(e)

Remarks:

Required Velocity: 2780 ± 30 ft/s
Projectile yaw check: 0° yaw on all shots.
Sample previously impacted.

Footnotes:

- (a) center view port
(b) left center shield
(c) bottom right bolt strap
(d) left bottom shield
(e) right bottom shield

BALLISTIC RESISTANCE TEST

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4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC

Project No.: OH000004170-3

Test Date: 08/22/2022

Page 1 of 1

Test Panel Description: Level III Ballistic Shield

Manufacturer: Hardwire, LLC

Sample No.: (M193, V0) SR22-038159

Size: 20.50 x 30.50 in
Avg. Thickness: 0.775 in
Thicknesses: 0.760 in, 0.770 in,
0.780 in, 0.790 in

Weight: 25.810 lbs
Plies/Laminates: N/A

Date Received: 08/22/2022
Received Via: Hand Carried
Returned Via: Hand Carried

Setup

Shot Spacing: NIJ-STD-0108.01
Level III
Witness Panel: 0.02 in 2024-T3
Aluminum
Backing Material: N/A
Condition: Ambient

Primary Vel. Screens (ft): 6.500, 9.500
Primary Vel. Location (ft): 8.000
Range to Target (ft): 50.000
Target to Witness (in): 6.000

Range No.: Range 6
Temp: 63.8 °F
BP: 29.8 inHg
RH: 49.8 %
Barrel/Gun: WC078572
Gunner: Cody Schilling
Recorder: William Ellis

Ammunition

Projectile	Lot No.	Manufacturer	Powder
(1) 5.56 x 45-mm, 55-grain M193	NA	Military	N 110

Applicable Standards or Procedures

(1) NIJ-STD-0108.01 Level III (Modified)

(2) Customer Request

Shot No.	Ammo	Powder/ Seating	Weight (gr)	Time 1 (µs)	Vel. 1 (ft/s)	Time 2 (µs)	Vel. 2 (ft/s)	Avg. Vel. (ft/s)	Penetration	Obliq. (°)	Footnotes
1	1	18.7	55.1	931	3222	931	3222	3222	None	0.0	(a)
2	1	18.6	55.1	944	3178	941	3188	3183	None	0.0	(b)
3	1	18.6	55.1	941	3188	941	3188	3188	None	0.0	(c)
4	1	18.6	55.1	941	3188	941	3188	3188	None	0.0	(d)
5	1	18.6	55.1	931	3222	929	3229	3226	None	0.0	(e)
6	1	18.6	55.0	939	3195	939	3195	3195	None	0.0	(f)
7	1	18.6	55.1	936	3205	934	3212	3209	None	0.0	(g)

Remarks:

Required Velocity: 3200 ± 30 ft/s

Projectile yaw check: 0° yaw on all shots.

Sample previously impacted.

Footnotes:

- (a) top right bolt
- (b) top left shield
- (c) top right shield
- (d) center right shield
- (e) center bottom shield
- (f) bottom right window bolt
- (g) bottom left window bolt