

HARDWIRE®

Expedient Hard Body Armor Options for Israel

Hardwire is pleased to offer body armor options to Israel for urgently needed equipment. Hardwire is the leading body armor manufacturer (not a reseller). Based in Maryland, USA, the team currently supplies the U.S. military directly as well as allies through Foreign Military Sales. Hardwire has massive capacity that can be dedicated to expedient delivery and has a multi-decade relationship with all key materials suppliers. Hardwire's credibility and on-time delivery can be verified through the U.S. government and current customers.



Hard Armor Plates:

Hard Armor Plates for Handgun, Shotgun, and Assault Rifle Protection available in NIJ Level III. Available in Large SAPI size. Ballistic data provided in appendices.

Standard Multi-Curve Plate – Certified to NIJ 0101.06



Lightweight Multi-Curve Plate – Certified to NIJ 0101.06



Level 3+ Multi-Curve Plate – Certified to NIJ 0101.06



Flat Plate – Tested In Accordance With NIJ 0101.06



	Plate Weight (each)			
Size	Standard Multi-Curve	Lightweight Multi-Curve	Level 3+ Multi-Curve	Flat Plate
Large	3.5 lbs.	2.7 lbs.	4.5 lbs.	5.1 lbs.

HARDWIRE®

Hard Armor Plates Delivery:

- **2,025 Large Flat Plates in stock and available for immediate shipment.**
- Total quantity of up to 25,000 Flat Plates available.
- Production rate of ~2,500 – 4,000 plates per week available depending on size and configuration. Minimal ramp-up time required.
- Plates can be made available for lab testing as needed.
- All NIJ ballistic testing and certification data is provided in the enclosed appendices.

Pricing:

Contact Hardwire for pricing.

Payment terms are cash up front unless otherwise agreed to.

Export Control:

Export approval is required by U.S. law for these armor kits.

Standard Multi-Curve Plate – Certified to NIJ 0101.06

Data Appendix



U.S. Department of Justice

Office of Justice Programs

National Institute of Justice

Washington, D.C. 20530

September 7, 2016

Hardwire, LLC
1947 Clarke Avenue
Pocomoke City, MD 21851

Notice of Compliance with NIJ Standard–0101.06

Body Armor Model Designation: 007-015-3000
NIJ Compliance Status Expires: September 7, 2021

Dear XXXXXXXXXX

We have completed our evaluation of the body armor model identified above that was submitted to the National Institute of Justice's (NIJ's) Voluntary Body Armor Compliance Testing Program. We are pleased to inform you that the above body armor model satisfies the requirements of NIJ Standard–0101.06 and the Compliance Testing Program.

We also received your completed declaration concerning the model noted above and your agreement to participate in the conformity assessment follow-up process.

The body armor model details are listed on the NIJ Compliant Products List available at www.justnet.org/CTP.

You are now authorized to place the NIJ Statement of Compliance on the labels of this body armor model and all subsequent production units. The Statement of Compliance shall read:

“This model of armor has been determined to comply with NIJ Standard–0101.06 by the NIJ Compliance Testing Program and is listed on the NIJ Compliant Products List.”

All compliance requirements, as identified by the *NIJ Body Armor Compliance Testing Program Administrative Manual* and the *Ballistic Body Armor Applicant Package*, must be maintained as long as the NIJ Statement of Compliance is displayed on this armor model's labels. If, at any time, the compliance status of this armor model is changed, the NIJ Statement of Compliance shall cease to be used as of the date of the status change.

Sincerely,

Michael K. O'Shea
Senior Law Enforcement Program Manager
US Department of Justice
OJP/NIJ/OST/Operational Technologies Division

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC

Job No.: 2084-109-4

Test Date: 2/16/2017

Test Panel

Description: Torso plate; Model No.: 007-015-3000, Part No.: 007-015-3200, Lot No.: 1626-0170

Manufacturer: Hardwire, LLC

Sample No.: 1626 003A 042498

Size: 10.00 x 12.00 in
Avg. Thick: NA
Thickness: NA

Weight: 2.98 lbs
Plies/Laminates: NA

Date Received: 2/15/2017
Via: FedEx
Returned: FedEx

Setup

Shot Spacing: NIJ-STD-0101.06 Level III
Witness Panel: Clay
Backing Material: 5.5-in clay/plywood
Condition: Ambient

Primary Vel. Screens (ft): 37.000, 37.333,
46.667, 47.000
Primary Vel. Location (ft): 42.000
Range to Target (ft): 50.200
Target to Witness (in): 0.000

Range No.: 5
Temp: 67.2 °F
BP: 29.5 inHg
RH: 32.1%
Barrel/Gun: CT-4002
Gunner: J. Thomas
Recorder: Lance Eveland

Ammunition

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

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 9:42 AM; Block No. 9; Temp: 91.7°F; Drop Depths: 18.9mm,19.3mm,18.1mm,17.3mm,17.5mm

(1) NIJ-STD-0101.06 Level III (Modified)

(2) Customer request

Shot No.	Ammo	Weight (gr)	Time 1 (µs)	Vel. 1 (ft/s)	Time 2 (µs)	Vel. 2 (ft/s)	Avg. Vel. (ft/s)	Penetration	Deformation (mm)	Obliq. (°)	Footnotes
1	1	54.6	3197	3128	2985	3127	3127	None	21.1	0.0	
2	1	54.7	3177	3148	2965	3148	3148	None	26.7	0.0	
3	1	54.8	3175	3150	2963	3150	3150	None	NA	0.0	
4	1	55.0	3207	3118	2992	3119	3119	None	NA	0.0	
5	1	54.4	3168	3157	2953	3161	3159	None	NA	0.0	
6	1	54.9	3180	3145	2965	3148	3146	None	NA	0.0	

Remarks:

Required velocity: 3150 ±50 ft/s

Footnotes:

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC

Job No.: 2084-109-2

Test Date: 2/16/2017

Test Panel

Description: Torso plate; Model No.: 007-015-3000, Part No.: 007-015-3200, Lot No.: 1626-0170

Manufacturer: Hardwire, LLC

Sample No.: 1626 003A 042468

Size: 10.00 x 12.00 in
Avg. Thick: NA
Thickness: NA

Weight: 3.07 lbs
Plies/Laminates: NA

Date Received: 2/15/2017
Via: FedEx
Returned: FedEx

Setup

Shot Spacing: NIJ-STD-0101.06 Level III
Witness Panel: Clay
Backing Material: 5.5-in clay/plywood
Condition: Ambient

Primary Vel. Screens (ft): 37.000, 37.333,
46.667, 47.000
Primary Vel. Location (ft): 42.000
Range to Target (ft): 50.200
Target to Witness (in): 0.000

Range No.: 5
Temp: 67.4 °F
BP: 29.5 inHg
RH: 32.2%
Barrel/Gun: CT-4016
Gunner: J. Thomas
Recorder: Lance Eveland

Ammunition

Projectile	Lot No.	Powder
(1) 7.62 x 39-mm, 123-grain PS Ball	Russian	N 110

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 9:15 AM; Block No. 9; Temp: 92.6°F; Drop Depths: 19.3mm,19.1mm,17.9mm,16.4mm,17.8mm

(1) NIJ-STD-0101.06 Level III (Modified)

(2) Customer request

Shot No.	Ammo	Weight (gr)	Time 1 (µs)	Vel. 1 (ft/s)	Time 2 (µs)	Vel. 2 (ft/s)	Avg. Vel. (ft/s)	Penetration	Deformation (mm)	Obliq. (°)	Footnotes
1	1	122.7	4266	2344	3976	2347	2346	None	26.1	0.0	
2	1	122.1	4230	2364	3941	2368	2366	None	28.2	0.0	
3	1	122.2	4220	2370	3937	2371	2370	None	NA	0.0	
4	1	123.1	4230	2364	3944	2366	2365	None	NA	0.0	
5	1	122.6	4232	2363	3946	2365	2364	None	NA	0.0	
6	1	122.9	4230	2364	3941	2368	2366	None	NA	0.0	

Remarks:

Required velocity: 2350 ±50 ft/s

Footnotes:

Lightweight Multi-Curve Plate – Certified to NIJ 0101.06

Data Appendix



U.S. Department of Justice

Office of Justice Programs

National Institute of Justice

Washington, D.C. 20531

NIJ Notice of Compliance

Benjamin Kremer
Hardwire, LLC
1947 Clarke Ave
Pocomoke City, MD 21851

Model Designation: HW-RF1SA-2020
Product Type: Ballistic Resistant Body Armor
Standard: NIJ Standard 0101.06
Classification: III
Shot to Edge Distance: 2 inch
Size Tested: 10 in x 12 in
Test Identification Number(s): MC03320

Dear Benjamin Kremer,

The National Institute of Justice (NIJ) has completed its evaluation of the documentation and test items representing the model identified above and determined that this product model complies with the applicable requirements.

This letter authorizes the applicant to begin applying the NIJ Mark to this model in accordance with the terms of the NIJ Compliance Testing Program Applicant Agreement.

Authorization to apply the NIJ Mark may be withdrawn by NIJ at any time in accordance with the NIJ Compliance Testing Program Applicant Agreement. End users are advised to confirm the model's current status on the NIJ Compliant Products List available at https://justnet.org/compliant/ballistic_cpl.html.

This document may only be copied in its entirety without modification.

Sincerely,

MARK GREENE Digitally signed by MARK GREENE
Date: 2020.09.10 22:25:29 -04'00'

Mark Greene, Ph.D.
Technology and Standards Division Director
Office of Research, Evaluation and Technology
National Institute of Justice

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC
Job No.: 2084-232-1
Test Date: 10/13/2020

Test Panel

Description: Torso Plate. Model: HW-RF1SA-2020, Lot: CMO2001032

Manufacturer: Hardwire, LLC

Sample No.: SR20-074291

Size: Large
Avg. Thick: NA
Thickness: NA

Weight: 2.65 lbs
Plies/Laminates: NA

Date Received: 10/13/2020
Via: Hand Carried
Returned: Hand Carried

Setup

Shot Spacing: NIJ-STD-0101.06 Level III
Witness Panel: Clay
Backing Material: 5.5-in clay/plywood
Condition: Ambient

Primary Vel. Screens (ft): 37.000, 37.333,
46.667, 47.000
Primary Vel. Location (ft): 42.000
Range to Target (ft): 50.200
Target to Witness (in): 0.000

Range No.: 4
Temp: 66.2 °F
BP: 30.3 inHg
RH: 53.0%
Barrel/Gun: Test Barrel
Gunner: I. Lookingbill
Recorder: Matt Rixham

Ammunition

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

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 2:45 PM; Block No. 6; Temp: 92.1°F; Drop Depths: 18.5mm, 17.1mm, 16.8mm, 17.8mm, 18.0mm
(1) NIJ-STD-0101.06 Level III (Modified)
(2) Customer request

Shot No.	Ammo	Weight (gr)	Time 1 (µs)	Vel. 1 (ft/s)	Time 2 (µs)	Vel. 2 (ft/s)	Avg. Vel. (ft/s)	Penetration	Deformation (mm)	Obliq. (°)	Footnotes
1	1	55.0	3043	3286	2843	3283	3285	None	16.5	0.0	
2	1	55.0	3047	3282	2848	3277	3280	None	26.8	0.0	
3	1	55.0	3030	3300	2826	3303	3301	None	NA	0.0	
4	1	55.0	3056	3272	2852	3273	3272	None	NA	0.0	
5	1	55.0	3065	3263	2861	3262	3262	None	NA	0.0	
6	1	55.0	3065	3263	2861	3262	3262	None	NA	0.0	

Remarks:

Required Velocity: 3250 + 50 ft/s.

Footnotes:

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC
Job No.: 2084-232-2
Test Date: 10/13/2020

Test Panel

Description: Torso Plate. Model: HW-RF1SA-2020, Lot: CMO2001032

Manufacturer: Hardwire, LLC

Sample No.: SR20-074291

Size: Large
Avg. Thick: NA
Thickness: NA

Weight: 2.65 lbs
Plies/Laminates: NA

Date Received: 10/13/2020
Via: Hand Carried
Returned: Hand Carried

Setup

Shot Spacing: NIJ-STD-0101.06 Level III
Witness Panel: Clay
Backing Material: 5.5-in clay/plywood
Condition: Ambient

Primary Vel. Screens (ft): 37.000, 37.333,
46.667, 47.000
Primary Vel. Location (ft): 42.000
Range to Target (ft): 50.200
Target to Witness (in): 0.000

Range No.: 4
Temp: 66.2 °F
BP: 30.3 inHg
RH: 53.0%
Barrel/Gun: Test Barrel
Gunner: I. Lookingbill
Recorder: Matt Rixham

Ammunition

Projectile	Lot No.	Powder
(1) 7.62 x 39-mm, 123-grain MSC	Chinese	N133

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 2:45 PM; Block No. 6; Temp: 92.1°F; Drop Depths: 18.5mm, 17.1mm, 16.8mm, 17.8mm, 18.0mm
(1) NIJ-STD-0101.06 Level III (Modified)
(2) Customer request

Shot No.	Ammo	Weight (gr)	Time 1 (µs)	Vel. 1 (ft/s)	Time 2 (µs)	Vel. 2 (ft/s)	Avg. Vel. (ft/s)	Penetration	Deformation (mm)	Obliq. (°)	Footnotes
1	1	123.0	4232	2363	3950	2363	2363	None	27.9	0.0	
2	1	123.0	4230	2364	3948	2364	2364	None	19.8	0.0	
3	1	123.0	4167	2400	3889	2400	2400	None	NA	0.0	
4	1	123.0	4240	2358	3958	2358	2358	None	NA	0.0	
5	1	123.0	4149	2410	3872	2410	2410	None	NA	0.0	
6	1	123.0	4193	2385	3915	2384	2384	None	NA	0.0	

Remarks:

Required Velocity: 2380 ± 30 ft/s.

Footnotes:

Level 3+ Multi-Curve Plate – Certified to NIJ 0101.06

Data Appendix



U.S. Department of Justice

Office of Justice Programs

National Institute of Justice

Washington, D.C. 20531

NIJ Notice of Compliance

Benjamin Kremer
Hardwire, LLC
1947 Clarke Ave
Pocomoke City, MD 21851

Model Designation: HW-RF2SA-2020
Product Type: Ballistic Resistant Body Armor
Standard: NIJ Standard 0101.06
Classification: III
Shot to Edge Distance: 2 inch
Size Tested: 10 in x 12 in
Test Identification Number(s): MC03321

Dear Benjamin Kremer,

The National Institute of Justice (NIJ) has completed its evaluation of the documentation and test items representing the model identified above and determined that this product model complies with the applicable requirements.

This letter authorizes the applicant to begin applying the NIJ Mark to this model in accordance with the terms of the NIJ Compliance Testing Program Applicant Agreement.

Authorization to apply the NIJ Mark may be withdrawn by NIJ at any time in accordance with the NIJ Compliance Testing Program Applicant Agreement. End users are advised to confirm the model's current status on the NIJ Compliant Products List available at https://justnet.org/compliant/ballistic_cpl.html.

This document may only be copied in its entirety without modification.

Sincerely,

MARK GREENE Digitally signed by MARK GREENE
Date: 2020.09.10 20:33:44 -04'00'

Mark Greene, Ph.D.
Technology and Standards Division Director
Office of Research, Evaluation and Technology
National Institute of Justice

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC
Job No.: 2084-232-1
Test Date: 10/15/2020

Test Panel

Description: Torso Plate. Model: HW-RF2SA-2020, Lot: CMO2001032

Manufacturer: Hardwire, LLC

Sample No.: SR20-074380

Size: Large
Avg. Thick: NA
Thickness: NA

Weight: 4.45 lbs
Plies/Laminates: NA

Date Received: 10/13/2020
Via: Hand Carried
Returned: Hand Carried

Setup

Shot Spacing: NIJ-STD-0101.06 Level III
Witness Panel: Clay
Backing Material: 5.5-in clay/plywood
Condition: Ambient

Primary Vel. Screens (ft): 37.000, 37.333,
46.667, 47.000
Primary Vel. Location (ft): 42.000
Range to Target (ft): 50.200
Target to Witness (in): 0.000

Range No.: 2
Temp: 66.6 °F
BP: 29.5 inHg
RH: 53.0%
Barrel/Gun: Test Barrel
Gunner: M. Skrocki
Recorder: Bret DeMond

Ammunition

Projectile	Lot No.	Powder
(1) 7.62 x 39-mm, 123-grain MSC	Chinese	N133

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 1:50 PM; Block No. 1; Temp: 94.7°F; Drop Depths: 20.9mm, 19.2mm, 20.1mm, 20.3mm, 18.0mm
(1) NIJ-STD-0101.06 Level III (Modified)
(2) Customer request

Shot No.	Ammo	Weight (gr)	Time 1 (µs)	Vel. 1 (ft/s)	Time 2 (µs)	Vel. 2 (ft/s)	Avg. Vel. (ft/s)	Penetration	Deformation (mm)	Obliq. (°)	Footnotes
1	1	122.4	4161	2403	3880	2405	2404	None	32.0	0.0	
2	1	122.4	4190	2387	3907	2389	2388	None	29.4	0.0	
3	1	122.4	4205	2378	3924	2379	2378	None	NA	0.0	
4	1	122.5	4164	2402	3883	2404	2403	None	NA	0.0	
5	1	122.6	4198	2382	3912	2386	2384	None	NA	0.0	
6	1	122.6	4125	2424	3846	2427	2426	None	NA	0.0	

Remarks:

Required Velocity: 2380 + 50 ft/s.

Footnotes:

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC
Job No.: 2084-232-2
Test Date: 10/13/2020

Test Panel

Description: Torso Plate. Model: HW-RF2SA-2020, Lot: CMO2001032

Manufacturer: Hardwire, LLC

Sample No.: SR20-074381

Size: Large
Avg. Thick: NA
Thickness: NA

Weight: 4.45 lbs
Plies/Laminates: NA

Date Received: 10/13/2020
Via: Hand Carried
Returned: Hand Carried

Setup

Shot Spacing: NIJ-STD-0101.06 Level III
Witness Panel: Clay
Backing Material: 5.5-in clay/plywood
Condition: Ambient

Primary Vel. Screens (ft): 37.000, 37.333,
46.667, 47.000
Primary Vel. Location (ft): 42.000
Range to Target (ft): 50.200
Target to Witness (in): 0.000

Range No.: 4
Temp: 67.0 °F
BP: 30.3 inHg
RH: 51.0%
Barrel/Gun: Test Barrel
Gunner: I. Lookingbill
Recorder: Matt Rixham

Ammunition

Projectile	Lot No.	Powder
(1) 5.56 x 45-mm, 62-grain M855 ball	Military	N 110

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 2:00 PM; Block No. 18; Temp: 91.5°F; Drop Depths: 17.2mm, 18.1mm, 17.7mm, 16.9mm, 17.5mm

- (1) NIJ-STD-0101.06 Level III (Modified)
- (2) Customer request

Shot No.	Ammo	Weight (gr)	Time 1 (µs)	Vel. 1 (ft/s)	Time 2 (µs)	Vel. 2 (ft/s)	Avg. Vel. (ft/s)	Penetration	Deformation (mm)	Obliq. (°)	Footnotes
1	1	62.0	3047	3282	2843	3283	3282	None	23.4	0.0	
2	1	62.0	3030	3300	2830	3298	3299	None	25.2	0.0	
3	1	62.0	3021	3310	2821	3309	3309	None	NA	0.0	
4	1	62.0	3047	3282	2848	3277	3280	None	NA	0.0	
5	1	62.0	3038	3292	2839	3288	3290	None	NA	0.0	
6	1	62.0	3073	3254	2861	3262	3258	None	NA	0.0	

Remarks:

Required Velocity: 3250 + 50 ft/s.

Footnotes:

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC
Job No.: 2084-232-3
Test Date: 10/13/2020

Test Panel

Description: Torso Plate. Model: HW-RF2SA-2020, Lot: CMO2001032

Manufacturer: Hardwire, LLC

Sample No.: SR20-074386

Size: Large
Avg. Thick: NA
Thickness: NA

Weight: 4.44 lbs
Plies/Laminates: NA

Date Received: 10/13/2020
Via: Hand Carried
Returned: Hand Carried

Setup

Shot Spacing: NIJ-STD-0101.06 Level III
Witness Panel: Clay
Backing Material: 5.5-in clay/plywood
Condition: Ambient

Primary Vel. Screens (ft): 37.000, 37.333,
46.667, 47.000
Primary Vel. Location (ft): 42.000
Range to Target (ft): 50.200
Target to Witness (in): 0.000

Range No.: 4
Temp: 66.2 °F
BP: 30.3 inHg
RH: 53.0%
Barrel/Gun: Test Barrel
Gunner: I. Lookingbill
Recorder: Matt Rixham

Ammunition

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

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 2:00 PM; Block No. 18; Temp: 91.5°F; Drop Depths: 17.2mm, 18.1mm, 17.7mm, 16.9mm, 17.5mm

- (1) NIJ-STD-0101.06 Level III (Modified)
- (2) Customer request

Shot No.	Ammo	Weight (gr)	Time 1 (µs)	Vel. 1 (ft/s)	Time 2 (µs)	Vel. 2 (ft/s)	Avg. Vel. (ft/s)	Penetration	Deformation (mm)	Obliq. (°)	Footnotes
1	1	55.0	NR	NR	2839	3288	3288	None	19.5	0.0	(a)
2	1	55.0	NR	NR	2865	3258	3258	None	16.9	0.0	(a)
3	1	55.0	3060	3268	2861	3262	3265	None	NA	0.0	
4	1	55.0	3047	3282	2843	3283	3282	None	NA	0.0	
5	1	55.0	3034	3296	2830	3298	3297	None	NA	0.0	
6	1	55.0	3030	3300	2826	3303	3301	None	NA	0.0	

Remarks:

Required Velocity: 3250 + 50 ft/s.

Footnotes:

(a) No velocity reading was obtained on Time 1.

Flat Plate – Tested In Accordance With NIJ 0101.06

Data Appendix

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC

Job No.: 2084-192-1

Test Date: 12/6/2019

Test Panel

Description: Torso plate tested as stand alone. Part #: 007-015-7300; Size: 10x12 Flat plate; Lot #: LT19-111819.

Manufacturer: Hardwire LLC

Sample No.: SR19-Test 20

Size: 10.00 x 12.00 in
Avg. Thick: NA
Thickness: NA

Weight: 4.48 lbs
Plies/Laminates: NA

Date Received: 11/25/2019
Via: DHL
Returned: NA

Setup

Shot Spacing: NIJ-STD-0101.06 Level III
Witness Panel: Clay
Backing Material: 5.5-in clay/plywood
Condition: Dropped and wet per NIJ-STD-0101.06 sec 6

Primary Vel. Screens (ft): 37.000, 37.333, 46.667, 47.000
Primary Vel. Location (ft): 42.000
Range to Target (ft): 50.200
Target to Witness (in): 0.000

Range No.: 2
Temp: 66.7 °F
BP: 29.9 inHg
RH: 39.1%
Barrel/Gun: Test Barrel
Gunner: Austin Blake
Recorder: Jesse Fulk

Ammunition

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

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 11:50 AM; Block No. 30; Temp: 91.6°F; Drop Depths: 20.6mm, 18.6mm, 17.4mm, 18.8mm, 20.7mm

(1) NIJ-STD-0101.06 Level III (Modified)

(2) Customer request

Shot No.	Ammo	Weight (gr)	Time 1 (µs)	Vel. 1 (ft/s)	Time 2 (µs)	Vel. 2 (ft/s)	Avg. Vel. (ft/s)	Penetration	Deformation (mm)	Obliq. (°)	Footnotes
1	1	148.0	3602	2776	3356	2781	2779	None	33.9	0.0	
2	1	148.0	3573	2799	3329	2804	2801	None	20.3	0.0	
3	1	148.0	3558	2811	3312	2818	2814	None	NA	0.0	
4	1	148.0	3587	2788	3341	2794	2791	None	NA	0.0	
5	1	148.0	3595	2782	3346	2789	2786	None	NA	0.0	
6	1	148.0	3590	2786	3343	2792	2789	None	NA	0.0	

Remarks:

Requested velocity: 2780 ±30 ft/s

Projectiles were provided by NTS-Chesapeake Testing.

Conditioned per NIJ 0101.06 Section 6.

Footnotes:

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC
Job No.: 2084-192-2
Test Date: 12/6/2019

Test Panel

Description: Torso plate tested as stand alone. Part #: 007-015-7300; Size: 10x12 Flat plate; Lot #: LT19-111819.

Manufacturer: Hardwire LLC

Sample No.: SR19-Test 21

Size: 10.00 x 12.00 in
Avg. Thick: NA
Thickness: NA

Weight: 4.21 lbs
Plies/Laminates: NA

Date Received: 11/25/2019
Via: DHL
Returned: NA

Setup

Shot Spacing: NIJ-STD-0101.06 Level III
Witness Panel: Clay
Backing Material: 5.5-in clay/plywood
Condition: Dropped and wet per NIJ-STD-0101.06 sec 6

Primary Vel. Screens (ft): 37.000, 37.333, 46.667, 47.000
Primary Vel. Location (ft): 42.000
Range to Target (ft): 50.200
Target to Witness (in): 0.000

Range No.: 2
Temp: 66.5 °F
BP: 29.9 inHg
RH: 38.4%
Barrel/Gun: Test Barrel
Gunner: Austin Blake
Recorder: Jesse Fulk

Ammunition

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

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 11:25 AM; Block No. 8; Temp: 92.5°F; Drop Depths: 19.4mm,19.5mm,21.6mm,18.6mm,18.1mm
(1) NIJ-STD-0101.06 Level III (Modified)
(2) Customer request

Shot No.	Ammo	Weight (gr)	Time 1 (µs)	Vel. 1 (ft/s)	Time 2 (µs)	Vel. 2 (ft/s)	Avg. Vel. (ft/s)	Penetration	Deformation (mm)	Obliq. (°)	Footnotes
1	1	148.0	3614	2767	3363	2775	2771	None	37.0	0.0	
2	1	148.0	3607	2772	3358	2779	2776	None	21.0	0.0	
3	1	148.0	3619	2763	3373	2767	2765	None	NA	0.0	
4	1	148.0	3595	2782	3348	2788	2785	None	NA	0.0	
5	1	148.0	3614	2767	3365	2774	2770	None	NA	0.0	
6	1	148.0	3602	2776	3356	2781	2779	None	NA	0.0	

Remarks:

Requested velocity: 2780 ±30 ft/s
Projectiles were provided by NTS-Chesapeake Testing.
Conditioned per NIJ 0101.06 Section 6.

Footnotes:

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC
Job No.: 2084-192-3
Test Date: 12/6/2019

Test Panel

Description: Torso plate tested as stand alone. Part #: 007-015-7300; Size: 10x12 Flat plate; Lot #: LT19-111819.

Manufacturer: Hardwire LLC

Sample No.: SR19-Test 22

Size: 10.00 x 12.00 in
Avg. Thick: NA
Thickness: NA

Weight: 4.25 lbs
Plies/Laminates: NA

Date Received: 11/25/2019
Via: DHL
Returned: NA

Setup

Shot Spacing: NIJ-STD-0101.06 Level III
Witness Panel: Clay
Backing Material: 5.5-in clay/plywood
Condition: Dropped and wet per NIJ-STD-0101.06 sec 6

Primary Vel. Screens (ft): 37.000, 37.333, 46.667, 47.000
Primary Vel. Location (ft): 42.000
Range to Target (ft): 50.200
Target to Witness (in): 0.000

Range No.: 2
Temp: 66.5 °F
BP: 29.9 inHg
RH: 40.3%
Barrel/Gun: Test Barrel
Gunner: Austin Blake
Recorder: Jesse Fulk

Ammunition

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

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 11:40 AM; Block No. 30; Temp: 92.4°F; Drop Depths: 18.5mm,19.1mm,20.1mm,19.7mm,18.2mm
(1) NIJ-STD-0101.06 Level III (Modified)
(2) Customer request

Shot No.	Ammo	Weight (gr)	Time 1 (µs)	Vel. 1 (ft/s)	Time 2 (µs)	Vel. 2 (ft/s)	Avg. Vel. (ft/s)	Penetration	Deformation (mm)	Obliq. (°)	Footnotes
1	1	148.0	3614	2767	3368	2771	2769	None	32.5	0.0	
2	1	148.0	3558	2811	3314	2816	2813	None	34.3	0.0	
3	1	148.0	3590	2786	3346	2789	2787	None	NA	0.0	
4	1	148.0	3602	2776	3356	2781	2779	None	NA	0.0	
5	1	148.0	3607	2772	3360	2778	2775	None	NA	0.0	
6	1	148.0	3587	2788	3343	2792	2790	None	NA	0.0	

Remarks:

Requested velocity: 2780 ±30 ft/s
Projectiles were provided by NTS-Chesapeake Testing.
Conditioned per NIJ 0101.06 Section 6.

Footnotes:

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC
Job No.: 2084-192-4
Test Date: 12/6/2019

Test Panel

Description: Torso plate tested as stand alone. Part #: 007-015-7300; Size: 10x12 Flat plate; Lot #: LT19-111819.

Manufacturer: Hardwire LLC

Sample No.: SR19-Test 24

Size: 10.00 x 12.00 in
Avg. Thick: NA
Thickness: NA

Weight: 4.30 lbs
Plies/Laminates: NA

Date Received: 11/25/2019
Via: DHL
Returned: NA

Setup

Shot Spacing: NIJ-STD-0101.06 Level III
Witness Panel: Clay
Backing Material: 5.5-in clay/plywood
Condition: Dropped and wet per NIJ-STD-0101.06 sec 6

Primary Vel. Screens (ft): 37.000, 37.333, 46.667, 47.000
Primary Vel. Location (ft): 42.000
Range to Target (ft): 50.200
Target to Witness (in): 0.000

Range No.: 2
Temp: 66.7 °F
BP: 29.9 inHg
RH: 40.0%
Barrel/Gun: Test Barrel
Gunner: Austin Blake
Recorder: Jesse Fulk

Ammunition

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

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 11:00 AM; Block No. 8; Temp: 93.3°F; Drop Depths: 18.4mm, 17.6mm, 20.8mm, 21.0mm, 18.6mm
(1) NIJ-STD-0101.06 Level III (Modified)
(2) Customer request

Shot No.	Ammo	Weight (gr)	Time 1 (µs)	Vel. 1 (ft/s)	Time 2 (µs)	Vel. 2 (ft/s)	Avg. Vel. (ft/s)	Penetration	Deformation (mm)	Obliq. (°)	Footnotes
1	1	148.0	3561	2808	3314	2816	2812	None	35.4	0.0	
2	1	148.0	3602	2776	3356	2781	2779	None	29.4	0.0	
3	1	148.0	3600	2778	3351	2785	2782	None	NA	0.0	
4	1	148.0	3624	2759	3375	2765	2762	None	NA	0.0	
5	1	148.0	3605	2774	3356	2781	2778	None	NA	0.0	
6	1	148.0	3612	2769	3360	2778	2773	None	NA	0.0	

Remarks:

Requested velocity: 2780 ±30 ft/s
Projectiles were provided by NTS-Chesapeake Testing.
Conditioned per NIJ 0101.06 Section 6.

Footnotes:

PROTECTION BALLISTIC LIMIT TEST, V₅₀ BL(P)

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC
Job No.: 2084-192-A
Test Date: 12/6/2019
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Test Panel

Description: Torso plate tested as stand alone. Part #: 007-015-7300; Size: 10x12 Flat plate; Lot #: LT19-111819.

Manufacturer: Hardwire, LLC

Sample No.: SR19-TEST 15-23

Size: See Remarks
Avg. Thick: NA
Thickness: NA

Weight: See Remarks
Plies/Laminates: NA
Required BL(P): NA

Date Received: 11/25/2019
Via: DHL
Returned: NA

Setup

Shot Spacing: NIJ-STD-0101.06 Level III
Witness Panel: Clay
Backing Material: 5.5-in clay
Condition: Dropped per NIJ-STD-0101.06

Primary Vel. Screens (ft): 37.000, 37.333, 46.667, 47.000
Primary Vel. Location (ft): 42.000
Range to Target (ft): 50.200
Target to Witness (in): 0.000

Range No.: 2
Temp: 66.2 °F
BP: 29.8 inHg
RH: 38.7%
Barrel/Gun: Test Barrel
Gunner: Austin Blake
Recorder: Jesse Fulk

Ammunition

Projectile	Lot No.	Powder
(1) 7.62 x 51-mm, 149-grain M80 FMJ	NA	H4350

Applicable Standards or Procedures

Clay Drop 1 - 2:10 PM; Block No. 53; 91.6°F; 18.3 mm, 19.2 mm, 20.1 mm, 18.8 mm, 18.4 mm
(1) NIJ-STD-0101.06 Level III (Modified)
(2) Customer request

Shot No.	Powder/Seating	Weight (gr)	Time 1 (µs)	Vel. 1 (ft/s)	Time 2 (µs)	Vel. 2 (ft/s)	Avg. Vel. (ft/s)	Result	Include in V ₅₀	Obliq. (°)	Footnotes
1	64.0	148.0	3612	2769	3368	2771	2770	P	No	0.0	
2	66.0	148.0	3502	2856	3263	2860	2858	P	No	0.0	
3	69.0	148.0	3387	2952	3158	2955	2954	P	No	0.0	
4	71.5	148.0	3275	3053	3050	3060	3057	P	No	0.0	
5	74.0	148.0	3148	3177	2933	3182	3179	P	No	0.0	
6	76.5	148.0	3055	3273	2848	3277	3275	P	No	0.0	
7	79.0	148.0	2972	3365	2770	3369	3367	P	No	0.0	
8	81.5	148.0	2853	3505	2655	3515	3510	P	No	0.0	
9	84.5	148.0	2779	3598	2591	3602	3600	P	No	0.0	(a)
10	84.5	148.0	2794	3579	2605	3583	3581	P	No	0.0	
11	84.5	148.0	2760	3623	2572	3629	3626	P	No	0.0	
12	84.5	148.0	2787	3588	2599	3591	3590	P	No	0.0	

Remarks

Requested velocity: 2780 ±30 ft/s
Projectiles were provided by NTS-Chesapeake Testing.
Conditioned per NIJ 0101.06 Section 6.
Shots 1-6 impacted on plate 15.
Plate SR19-Test 15; Weight: 4.38 lbs.; Size: 10.00 x 12.00 in.
Shots 7-12 impacted on plate 23.
Plate SR19-Test 23; Weight: 4.32 lbs.; Size: 10.00 x 12.00 in.

V₅₀ Summary:

No. Points: NA
V₅₀: NA ft/s
High Partial: NA ft/s
Low Complete: NA ft/s
Range of Results (ROR): NA ft/s
Range of Mix Results (RMR): NA
Gap: NA

Footnotes:

(a) Maximum velocity was reached.

PROTECTION BALLISTIC LIMIT TEST, V₅₀ BL(P)

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC
Job No.: 2084-192-B
Test Date: 12/6/2019
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Test Panel

Description: Torso plate tested as stand alone. Part #: 007-015-7300; Size: 10x12 Flat plate; Lot #: LT19-111819.

Manufacturer: Hardwire, LLC

Sample No.: SR19-Test 16-17

Size: See Remarks
Avg. Thick: NA
Thickness: NA

Weight: See Remarks
Plies/Laminates: NA
Required BL(P): NA

Date Received: 11/25/2019
Via: DHL
Returned: NA

Setup

Shot Spacing: NIJ-STD-0101.06 Level III
Witness Panel: Clay
Backing Material: 5.5-in clay
Condition: Dropped per NIJ-STD-0101.06

Primary Vel. Screens (ft): 37.000, 37.333, 46.667, 47.000
Primary Vel. Location (ft): 42.000
Range to Target (ft): 50.200
Target to Witness (in): 0.000

Range No.: 2
Temp: 66.9 °F
BP: 29.8 inHg
RH: 40.4%
Barrel/Gun: Test Barrel
Gunner: Austin Blake
Recorder: Jesse Fulk

Ammunition

Projectile	Lot No.	Powder
(1) 7.62 x 51-mm, 149-grain M80 FMJ	NA	H4350

Applicable Standards or Procedures

Clay Drop 1 - 1:10 PM; Block No. 53; 91.8°F; 18.1 mm, 20.4 mm, 19.7 mm, 18.5 mm, 19.1 mm
(1) NIJ-STD-0101.06 Level III (Modified)
(2) Customer request

Shot No.	Powder/Seating	Weight (gr)	Time 1 (µs)	Vel. 1 (ft/s)	Time 2 (µs)	Vel. 2 (ft/s)	Avg. Vel. (ft/s)	Result	Include in V ₅₀	Obliq. (°)	Footnotes
1	64.0	148.0	3592	2784	3348	2788	2786	P	No	0.0	
2	66.0	148.0	3502	2856	3263	2860	2858	P	No	0.0	
3	69.0	148.0	3353	2982	3126	2986	2984	P	No	0.0	
4	72.5	148.0	3138	3187	2923	3193	3190	P	No	0.0	
5	75.0	148.0	3070	3257	2858	3266	3262	P	No	0.0	
6	78.0	148.0	2980	3356	2775	3363	3360	P	No	0.0	
7	81.0	148.0	2858	3499	2662	3506	3503	P	No	0.0	
8	84.0	148.0	2811	3557	2620	3562	3560	P	Yes	0.0	
9	84.5	148.0	2792	3582	2601	3588	3585	P	Yes	0.0	(a)
10	84.5	148.0	2784	3592	2592	3601	3596	C	Yes	0.0	
11	83.5	148.0	2801	3570	2609	3577	3574	C	Yes	0.0	
12	82.5	148.0	2828	3536	2635	3542	3539	P	No	0.0	

Remarks

Requested velocity: 2780 ±30 ft/s
Projectiles were provided by NTS-Chesapeake Testing.
Conditioned per NIJ 0101.06 Section 6.
Shots 1-6 impacted on plate 16.
Plate SR19-Test 16; Weight: 4.15 lbs.; Size: 10.00 x 12.00 in.
Shots 7-12 impacted on plate 17.
Plate SR19-Test 17; Weight: 4.31 lbs.; Size: 10.00 x 12.00 in.

V₅₀ Summary:

No. Points: 2 and 2
V₅₀: 3579 ft/s
High Partial: 3585 ft/s
Low Complete: 3574 ft/s
Range of Results (ROR): 36 ft/s
Range of Mix Results (RMR): 11 ft/s
Gap: NA

Footnotes:

(a) Maximum velocity was reached.

PROTECTION BALLISTIC LIMIT TEST, V₅₀ BL(P)

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC
Job No.: 2084-192-B
Test Date: 12/6/2019
Page 2 of 2

Manufacturer: Hardwire, LLC

Sample No.: SR19-Test 16-17

V₅₀ Summary:

No. Points: 2 and 2
V₅₀: 3579 ft/s
High Partial: 3585 ft/s
Low Complete: 3574 ft/s
Range of Results (ROR): 36 ft/s
Range of Mix Results (RMR): 11 ft/s
Gap: NA

