

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC
Job No.: 2084-213-1
Test Date: 2/19/2020

Test Panel

Description: Soft armor. Model: HW-2019-05-SB

Manufacturer: Hardwire, LLC

Sample No.: 0002

Size: 2015-C3
Avg. Thick: NA
Thickness: NA

Weight: 0.88 lbs
Plies/Laminates: NA

Date Received: 2/18/2020
Via: UPS
Returned: UPS

Setup

Shot Spacing: NIJ-STD-0101.06 Level II
Witness Panel: Clay
Backing Material: 5.5-in clay/plywood
Condition: Wet per NIJ-STD-0101.06

Primary Vel. Screens (ft): 6.500, 6.833,
11.166, 11.500
Primary Vel. Location (ft): 9.000
Range to Target (ft): 17.200
Target to Witness (in): 0.000

Range No.: 3
Temp: 67.1 °F
BP: 30.1 inHg
RH: 44.5%
Barrel/Gun: Test Barrel
Gunner: C. Peddicord
Recorder: Ramon Chavez

Ammunition

Projectile	Lot No.	Powder
(1) 9-mm, 124-grain HST HP	Federal R51P259423262	Accurate No. 2

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 3:10 PM; Block No. 28; Temp: 93.2 °F; Drop Depths: 18.5mm, 18.4mm, 17.5mm, 16.4mm, 16.6mm
(1) NIJ-STD-0101.06 Level II (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	124.0	3832	1305	3321	1305	1305	None	28.3	0.0	
2	1	124.0	3819	1309	3309	1309	1309	None	29.6	0.0	
3	1	124.0	3807	1313	3297	1314	1314	None	27.9	0.0	
4	1	124.0	3841	1302	3329	1302	1302	None	NA	30.0	
5	1	124.0	3905	1280	3382	1281	1281	None	NA	45.0	
6	1	124.0	3819	1309	3307	1310	1310	None	NA	0.0	

Remarks:

Requested Velocity: 1280 - 1340 ft/s

Footnotes:

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC
Job No.: 2084-213-2
Test Date: 2/19/2020

Test Panel

Description: Soft armor. Model: HW-2019-05-SB

Manufacturer: Hardwire, LLC

Sample No.: 0003

Size: 2015-C3
Avg. Thick: NA
Thickness: NA

Weight: 0.88 lbs
Plies/Laminates: NA

Date Received: 2/18/2020
Via: UPS
Returned: UPS

Setup

Shot Spacing: NIJ-STD-0101.06 Level II
Witness Panel: Clay
Backing Material: 5.5-in clay/plywood
Condition: Wet per NIJ-STD-0101.06

Primary Vel. Screens (ft): 6.500, 6.833,
11.166, 11.500
Primary Vel. Location (ft): 9.000
Range to Target (ft): 17.200
Target to Witness (in): 0.000

Range No.: 3
Temp: 67.2 °F
BP: 30.1 inHg
RH: 43.4%
Barrel/Gun: Test Barrel
Gunner: C. Peddicord
Recorder: Ramon Chavez

Ammunition

Projectile	Lot No.	Powder
(1) .40-cal., S&W 165-grain T-series	Winchester	Accurate No. 2

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 3:10 PM; Block No. 28; Temp: 93.2 °F; Drop Depths: 18.5mm, 18.4mm, 17.5mm, 16.4mm, 16.6mm

- (1) NIJ-STD-0101.06 Level II (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	165.0	3985	1255	3453	1255	1255	None	30.6	0.0	
2	1	165.0	3990	1253	3458	1253	1253	None	32.1	0.0	
3	1	165.0	4017	1245	3483	1244	1244	None	31.0	0.0	
4	1	165.0	4017	1245	3480	1245	1245	None	NA	30.0	
5	1	165.0	4017	1245	3480	1245	1245	None	NA	45.0	
6	1	165.0	4037	1239	3497	1239	1239	None	NA	0.0	

Remarks:

Requested Velocity: 1200-1260 ft/s

Footnotes:

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC
Job No.: 2084-213-3
Test Date: 2/19/2020

Test Panel

Description: Soft armor. Model: HW-2019-05-SB

Manufacturer: Hardwire, LLC

Sample No.: 0004

Size: 2015-C3
Avg. Thick: NA
Thickness: NA

Weight: 0.88 lbs
Plies/Laminates: NA

Date Received: 2/18/2020
Via: UPS
Returned: UPS

Setup

Shot Spacing: NIJ-STD-0101.06 Level II
Witness Panel: Clay
Backing Material: 5.5-in clay/plywood
Condition: Wet per NIJ-STD-0101.06

Primary Vel. Screens (ft): 6.500, 6.833,
11.166, 11.500
Primary Vel. Location (ft): 9.000
Range to Target (ft): 17.200
Target to Witness (in): 0.000

Range No.: 3
Temp: 67.4 °F
BP: 30.1 inHg
RH: 45.6%
Barrel/Gun: Test Barrel
Gunner: C. Peddicord
Recorder: Ramon Chavez

Ammunition

Projectile	Lot No.	Powder
(1) .357-cal., 125-grain SIG GDHP	Speer	Accurate No. 2

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 3:35 PM; Block No. 28; Temp: 93.2 °F; Drop Depths: 18.9mm, 17.1mm, 18.0mm, 16.9mm, 17.6mm
(1) NIJ-STD-0101.06 Level II (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	125.0	3402	1470	2948	1470	1470	None	35.2	0.0	
2	1	125.0	3414	1465	2955	1466	1465	None	37.1	0.0	
3	1	125.0	3375	1481	2921	1483	1482	None	30.8	0.0	
4	1	125.0	3402	1470	2948	1470	1470	None	NA	30.0	
5	1	125.0	3404	1469	2948	1470	1469	None	NA	45.0	
6	1	125.0	3395	1473	2941	1473	1473	None	NA	0.0	

Remarks:

Requested Velocity: 1435-1495 ft/s

Footnotes:

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC
Job No.: 2084-213-4
Test Date: 2/19/2020

Test Panel

Description: Soft armor. Model: HW-2019-05-SB

Manufacturer: Hardwire, LLC

Sample No.: 0005

Size: 2015-C3
Avg. Thick: NA
Thickness: NA

Weight: 0.88 lbs
Plies/Laminates: NA

Date Received: 2/18/2020
Via: UPS
Returned: UPS

Setup

Shot Spacing: NIJ-STD-0101.06 Level II
Witness Panel: Clay
Backing Material: 5.5-in clay/plywood
Condition: Wet per NIJ-STD-0101.06

Primary Vel. Screens (ft): 6.500, 6.833,
11.166, 11.500
Primary Vel. Location (ft): 9.000
Range to Target (ft): 17.200
Target to Witness (in): 0.000

Range No.: 3
Temp: 67.4 °F
BP: 30.1 inHg
RH: 45.7%
Barrel/Gun: Test Barrel
Gunner: C. Peddicord
Recorder: Ramon Chavez

Ammunition

Projectile	Lot No.	Powder
(1) 5.7 x 28-mm, 40-grain SS197SR	FNH USA 0521069058	Accurate No. 2

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 4:00 PM; Block No. 11; Temp: 92.7 °F; Drop Depths: 18.0mm, 18.0mm, 18.1mm, 17.4mm, 19.1mm

- (1) NIJ-STD-0101.06 Level II (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	40.0	2850	1754	2472	1753	1754	None	18.2	0.0	
2	1	40.0	2877	1738	2494	1737	1738	None	17.1	0.0	
3	1	40.0	2865	1745	2482	1746	1745	None	15.5	0.0	
4	1	40.0	2845	1757	2467	1756	1757	None	NA	30.0	
5	1	40.0	2840	1761	2462	1760	1760	None	NA	45.0	
6	1	40.0	2858	1749	2479	1748	1749	None	NA	0.0	

Remarks:

Requested Velocity: 1720-1780 ft/s

Footnotes:

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC
Job No.: 2084-213-5
Test Date: 2/21/2020

Test Panel

Description: Soft armor. Model: HW-2019-05-SB

Manufacturer: Hardwire, LLC

Sample No.: 0007

Size: 2015-C3
Avg. Thick: NA
Thickness: NA

Weight: 0.87 lbs
Plies/Laminates: NA

Date Received: 2/18/2020
Via: UPS
Returned: UPS

Setup

Shot Spacing: NIJ-STD-0101.06 Level II
Witness Panel: Clay
Backing Material: 5.5-in clay/plywood
Condition: Wet per NIJ-STD-0101.06

Primary Vel. Screens (ft): 6.500, 6.833,
11.166, 11.500
Primary Vel. Location (ft): 9.000
Range to Target (ft): 17.200
Target to Witness (in): 0.000

Range No.: 5
Temp: 67.1 °F
BP: 30.2 inHg
RH: 37.2%
Barrel/Gun: Test Barrel
Gunner: C. Peddicord
Recorder: Jesse Fulk

Ammunition

Projectile	Lot No.	Powder
(1) 9-mm, 124-grain HST HP	Federal	Accurate No. 2

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 7:45 AM; Block No. 22; Temp: 95.7°F; Drop Depths: 19.3mm, 19.8mm, 16.7mm, 18.2mm, 17.4mm
(1) NIJ-STD-0101.06 Level II (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	124.0	3815	1311	3304	1311	1311	None	30.7	0.0	
2	1	124.0	3688	1356	3197	1355	1356	None	34.3	0.0	
3	1	124.0	3633	1376	3148	1376	1376	None	32.8	0.0	
4	1	124.0	3744	1335	3246	1335	1335	None	NA	30.0	
5	1	124.0	3724	1343	3229	1342	1342	None	NA	45.0	
6	1	124.0	3753	1332	3252	1332	1332	None	NA	0.0	

Remarks:

Requested Velocity: 1340 ± 30 ft/s

Footnotes:

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC
Job No.: 2084-213-6
Test Date: 2/19/2020

Test Panel

Description: Soft armor. Model: HW-2019-05-SB

Manufacturer: Hardwire, LLC

Sample No.: 0009

Size: 2015-C3
Avg. Thick: NA
Thickness: NA

Weight: 0.88 lbs
Plies/Laminates: NA

Date Received: 2/18/2020
Via: UPS
Returned: UPS

Setup

Shot Spacing: NIJ-STD-0101.06 Level II
Witness Panel: Clay
Backing Material: 5.5-in clay/plywood
Condition: Wet per NIJ-STD-0101.06

Primary Vel. Screens (ft): 6.500, 6.833,
11.166, 11.500
Primary Vel. Location (ft): 9.000
Range to Target (ft): 17.200
Target to Witness (in): 0.000

Range No.: 3
Temp: 67.2 °F
BP: 30.1 inHg
RH: 44.5%
Barrel/Gun: Test Barrel
Gunner: C. Peddicord
Recorder: Ramon Chavez

Ammunition

Projectile	Lot No.	Powder
(1) 9-mm, 127-grain +P+ T-Series	Winchester	Accurate No. 2

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 1:00 PM; Block No. 12; Temp: 92.1 °F; Drop Depths: 17.1mm, 17.4mm, 17.2mm, 18.1mm, 17.5mm
(1) NIJ-STD-0101.06 Level II (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	127.0	4059	1232	3517	1232	1232	None	28.1	0.0	
2	1	127.0	4039	1238	3500	1238	1238	None	29.9	0.0	
3	1	127.0	4032	1240	3495	1240	1240	None	29.1	0.0	
4	1	127.0	4073	1228	3531	1227	1227	None	NA	30.0	
5	1	127.0	4076	1227	3534	1226	1226	None	NA	45.0	
6	1	127.0	4076	1227	3531	1227	1227	None	NA	0.0	

Remarks:

Requested Velocity: 1220 - 1280 ft/s

Footnotes:

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC
Job No.: 2084-213-7
Test Date: 2/19/2020

Test Panel

Description: Soft armor. Model: HW-2019-05-SB

Manufacturer: Hardwire, LLC

Sample No.: 0006

Size: 2015-C3
Avg. Thick: NA
Thickness: NA

Weight: 0.88 lbs
Plies/Laminates: NA

Date Received: 2/18/2020
Via: UPS
Returned: UPS

Setup

Shot Spacing: NIJ-STD-0101.06 Level IIIA
Witness Panel: Clay
Backing Material: 5.5-in clay/plywood
Condition: Wet per NIJ-STD-0101.06

Primary Vel. Screens (ft): 6.500, 6.833,
11.166, 11.500
Primary Vel. Location (ft): 9.000
Range to Target (ft): 17.200
Target to Witness (in): 0.000

Range No.: 3
Temp: 67.6 °F
BP: 30.1 inHg
RH: 44.0%
Barrel/Gun: Test Barrel
Gunner: C. Peddicord
Recorder: Ramon Chavez

Ammunition

Projectile	Lot No.	Powder
(1) .44-mag., 240-grain SJHP	Speer B02X	Accurate No. 5

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 4:00 PM; Block No. 11; Temp: 92.7 °F; Drop Depths: 18.0mm, 18.0mm, 18.1mm, 17.4mm, 19.1mm
(1) NIJ-STD-0101.06 Level IIIA (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	240.0	3490	1433	3024	1433	1433	None	43.6	0.0	
2	1	240.0	3514	1423	3043	1424	1423	None	46.8	0.0	
3	1	240.0	3507	1426	3038	1426	1426	None	41.7	0.0	
4	1	240.0	3492	1432	3024	1433	1432	None	NA	30.0	
5	1	240.0	3478	1438	3014	1438	1438	None	NA	45.0	
6	1	240.0	3524	1419	3053	1419	1419	None	NA	0.0	

Remarks:

Requested Velocity: 1400-1460 ft/s

Footnotes: