

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC
Job No.: 2084-138-3
Test Date: 1/15/2018

Test Panel

Description: Torso plate model HW-ICW-III-HBA shot in conjunction with a level IIIA Vest model HW-2015-10-SB.

Manufacturer: Hardwire LLC

Sample No.: 1710-013A-000354

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

Weight: See remarks
Plies/Laminates: NA

Date Received: 1/15/2018
Via: FedEx
Returned: FedEx

Setup

Shot Spacing: NIJ-STD-0101.06 Level III
Witness Panel: Clay
Backing Material: 5.5-in clay/plywood
Condition: Wet 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.: 1
Temp: 66.3 °F
BP: 30.3 inHg
RH: 55.9%
Barrel/Gun: CDS-0203
Gunner: Alex Janouris
Recorder: Matt Settle

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: 1:10 PM; Block No. 6; Temp: 96.2°F; Drop Depths: 16.1mm,17.6mm,17.9mm,16.9mm,16.3mm
(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	3102	3224	2897	3222	3223	None	10.3	0.0	
2	1	54.3	3107	3219	2899	3220	3219	None	12.6	0.0	
3	1	54.7	3138	3187	2931	3184	3186	None	NA	0.0	
4	1	54.5	3109	3216	2902	3216	3216	None	NA	0.0	
5	1	54.8	3107	3219	2899	3220	3219	None	NA	0.0	
6	1	54.7	3099	3227	2892	3227	3227	None	NA	0.0	

Remarks:

Required velocity: 3200 ±30 ft/s
Plate: HW-ICW-III-HBA., Weight: 3.84 lbs, Size: 10.00 x 12.00 in. Lot No.: 1710-0016; Part No.: 007-0015-6100
Vest: 1716-002A-000347, Weight: 1.23 lbs, Size: MMRRR; Lot No.: 1716-0007; Part No.: 1221181

Footnotes:

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC
Job No.: 2084-138-6
Test Date: 1/15/2018

Test Panel

Description: Description: Torso plate model HW-ICW-III-HBA shot in conjunction with a level IIIA Vest model HW-2015-10-SB.

Manufacturer: Hardwire LLC

Sample No.: 1710-013A-000356

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

Weight: See remarks
Plies/Laminates: NA

Date Received: 1/15/2018
Via: FedEx
Returned: FedEx

Setup

Shot Spacing: NIJ-STD-0101.06 Level III
Witness Panel: Clay
Backing Material: 5.5-in clay/plywood
Condition: Wet 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.: 1
Temp: 66.2 °F
BP: 30.4 inHg
RH: 54.7%
Barrel/Gun: CT-4044
Gunner: Alex Janouris
Recorder: Matt Settle

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: 11:30 AM; Block No. 18; Temp: 98.6 °F; Drop Depths: 18.0mm, 19.0mm, 19.1mm, 17.2mm, 17.3mm
(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	4239	2359	3956	2359	2359	None	19.6	0.0	
2	1	122.2	4254	2351	3968	2352	2351	None	27.5	0.0	
3	1	122.5	4300	2326	4012	2326	2326	None	NA	0.0	
4	1	122.5	4259	2348	3973	2349	2349	None	NA	0.0	
5	1	122.4	4276	2339	3988	2340	2339	None	NA	0.0	
6	1	122.5	4295	2328	4007	2329	2329	None	NA	0.0	

Remarks:

Required velocity: 2330 ±30 ft/s

Plate: HW-ICW-III-HBA., Weight: 3.88 lbs, Size: 10.00 x 12.00 in. Lot No.: 1710-0016; Part No.: 007-0015-6100
Vest: 1716-002A-000348, Weight: 1.22 lbs, Size: MMRRR; Lot No.: 1716-0007; Part No.: 1221181

Footnotes:

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC
Job No.: 2084-138-7
Test Date: 1/15/2018

Test Panel

Description: Torso plate model HW-ICW-III-HBA shot in conjunction with a level IIIA Vest model HW-2015-10-SB.

Manufacturer: Hardwire LLC

Sample No.: 1710-013A-000355

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

Weight: See remarks
Plies/Laminates: NA

Date Received: 1/15/2018
Via: FedEx
Returned: FedEx

Setup

Shot Spacing: NIJ-STD-0101.06 Level III
Witness Panel: Clay
Backing Material: 5.5-in clay/plywood
Condition: Wet 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.: 1
Temp: 66.0 °F
BP: 30.4 inHg
RH: 56.6%
Barrel/Gun: CDS-0203
Gunner: Alex Janouris
Recorder: Matt Settle

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: 12:50 PM; Block No. 6; Temp: 98.5°F; Drop Depths: 16.3mm,16.5mm,17.7mm,17.8mm,17.0mm
(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	62.1	3307	3024	3085	3025	3025	None	9.4	0.0	
2	1	62.2	3297	3033	3075	3035	3034	None	12.2	0.0	
3	1	62.1	3309	3022	3089	3021	3022	None	NA	0.0	
4	1	62.1	3287	3042	3068	3042	3042	None	NA	0.0	
5	1	62.3	3295	3035	3075	3035	3035	None	NA	0.0	
6	1	62.2	3292	3038	3072	3038	3038	None	NA	0.0	

Remarks:

Required velocity: 3050 ±30 ft/s
Plate: HW-ICW-III-HBA., Weight: 3.85 lbs, Size: 10.00 x 12.00 in. Lot No.: 1710-0016; Part No.: 007-0015-6100
Vest: 1716-002A-000349, Weight: 1.22 lbs, Size: MMRRR; Lot No.: 1716-0007; Part No.: 1221181

Footnotes: