

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

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

Test Panel

Description: Torso plate tested stand alone. Lot No.: 1710-0016; Model No.: HW-LWP-SC-III; Part No.: 007-015-4100.

Manufacturer: Hardwire LLC

Sample No.: 1710-011A-000335

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

Weight: 2.87 lbs
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: 52.7%
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: 2:10 PM; Block No. 8; Temp: 100.1 °F; Drop Depths: 18.7mm,19.4mm,18.3mm,17.2mm,17.7mm
(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	55.1	3094	3232	2889	3231	3231	None	18.3	0.0	
2	1	54.5	3165	3160	2955	3158	3159	None	16.5	0.0	(a)
3	1	55.2	3111	3214	2904	3214	3214	None	21.8	0.0	(b)
4	1	54.4	3133	3192	2926	3190	3191	None	NA	0.0	
5	1	54.4	3102	3224	2894	3225	3224	None	NA	0.0	
6	1	55.1	3107	3219	2899	3220	3219	None	NA	0.0	
7	1	54.8	3114	3211	2904	3214	3213	None	NA	0.0	

Remarks:

Required velocity: 3200 ±30 ft/s

Footnotes:

- (a) The projectile had insufficient velocity.
(b) Replacement for shot 2.

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardwire LLC
Job No.: 2084-138-4
Test Date: 1/15/2018

Test Panel

Description: Torso plate tested stand alone. Lot No.: 1710-0016; Model No.: HW-LWP-SC-III; Part No.: 007-015-4100.

Manufacturer: Hardwire LLC

Sample No.: 1710-011A-000337

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

Weight: 2.75 lbs
Plies/Laminates: NA

Date Received: 1/15/2018
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: 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: 55.2%
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 539	N 110

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 11:00 AM; Block No. 8; Temp: 99.6°F; Drop Depths: 17.5mm,17.9mm,17.9mm,17.4mm,16.7mm
(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	123.1	4232	2363	3946	2365	2364	None	27.1	0.0	
2	1	122.6	4286	2333	4000	2333	2333	None	24.9	0.0	
3	1	122.1	4266	2344	3983	2343	2344	None	NA	0.0	
4	1	122.2	4247	2355	3961	2356	2355	None	NA	0.0	
5	1	121.8	4266	2344	3981	2344	2344	None	NA	0.0	
6	1	122.1	4286	2333	3998	2335	2334	None	NA	0.0	

Remarks:

Required velocity: 2330 ±30 ft/s

Footnotes: