

# BALLISTIC RESISTANCE TEST

## NTS-Chesapeake Testing

4603B Compass Point Road  
Belcamp, MD 21017

Client: Hardwire LLC  
Job No.: 2084-138-2  
Test Date: 1/15/2018

### Test Panel

Description: Torso plate tested stand alone. Lot No.: 1710-0016; Model No.: HW-LWP-III; Part No.: 007-015-5100.

Manufacturer: Hardwire LLC

Sample No.: 1710-011A-000344

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

Weight: 2.17 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: 57.4%  
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: 1:42 PM; Block No. 27; Temp: 94.9°F; Drop Depths: 16.1mm,16.3mm,18.9mm,17.3mm,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	55.0	3104	3222	2897	3222	3222	None	20.6	0.0	
2	1	55.2	3094	3232	2889	3231	3231	None	21.6	0.0	
3	1	54.7	3111	3214	2904	3214	3214	None	NA	0.0	
4	1	54.7	3092	3234	2884	3236	3235	None	NA	0.0	
5	1	55.0	3114	3211	2906	3212	3212	None	NA	0.0	
6	1	54.6	3114	3211	2904	3214	3213	None	NA	0.0	

#### Remarks:

Required velocity: 3200 ±30 ft/s

#### Footnotes:

# BALLISTIC RESISTANCE TEST

## NTS-Chesapeake Testing

4603B Compass Point Road  
Belcamp, MD 21017

Client: Hardwire LLC  
Job No.: 2084-138-5  
Test Date: 1/15/2018

### Test Panel

Description: Torso plate tested stand alone. Lot No.: 1710-0016; Model No.: HW-LWP-III; Part No.: 007-015-5100.

Manufacturer: Hardwire LLC

Sample No.: 1710-012A-000345

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

Weight: 2.18 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: 56.4%  
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: 10:40 AM; Block No. 8; Temp: 100.7°F; Drop Depths: 18.3mm, 19.6mm, 18.6mm, 17.4mm, 18.5mm  
(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	122.7	4239	2359	3956	2359	2359	None	23.5	0.0	
2	1	122.5	4261	2347	3976	2347	2347	None	27.3	0.0	
3	1	122.3	4239	2359	3959	2357	2358	None	NA	0.0	
4	1	122.1	4283	2335	3998	2335	2335	None	NA	0.0	
5	1	122.5	4239	2359	3956	2359	2359	None	NA	0.0	
6	1	122.5	4254	2351	3971	2350	2351	None	NA	0.0	

#### Remarks:

Required velocity: 2330 ±30 ft/s

#### Footnotes: