

# 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: