

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardcore Defense
Job No.: 21145-008-1
Test Date: 2/22/2019

Test Panel

Description: Steel Plate.

Manufacturer: Hardcore Defense

Sample No.: M80 (V0)

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

Weight:
Plies/Laminates: NA

Date Received: 2/20/2019
Via: UPS
Returned: UPS

Setup

Shot Spacing: NIJ-STD-0108.01 Level III
Witness Panel: 0.02 in 2024-T3 Al
Backing Material: NA
Condition: Ambient

Primary Vel. Screens (ft): 6.500, 9.500
Primary Vel. Location (ft): 8.000
Range to Target (ft): 50.000
Target to Witness (in): 6.000

Range No.: 2
Temp: 67.2 °F
BP: 30.2 inHg
RH: 45.3%
Barrel/Gun: CT-6026
Gunner: C. Peddicord
Recorder: Jesse Fulk

Ammunition

| Projectile | Lot No. | Powder |
|-------------------------------------|----------|--------|
| (1) 7.62 x 51-mm, 149-grain M80 FMJ | Military | N133 |

Applicable Standards or Procedures

- (1) NIJ-STD-0108.01 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 | Obliq. (°) | Footnotes |
|----------|------|-------------|-------------|---------------|-------------|---------------|------------------|-------------|------------|-----------|
| 1 | 1 | 148.6 | 1056 | 2841 | 1056 | 2841 | 2841 | None | 0.0 | |
| 2 | 1 | 148.7 | 1058 | 2836 | 1058 | 2836 | 2836 | None | 0.0 | |
| 3 | 1 | 148.3 | 1055 | 2844 | 1056 | 2841 | 2842 | None | 0.0 | |
| 4 | 1 | 148.5 | 1059 | 2833 | 1061 | 2828 | 2830 | None | 0.0 | |
| 5 | 1 | 148.5 | 1062 | 2825 | 1064 | 2820 | 2822 | None | 0.0 | |

Remarks:

Requested velocity: 2800 +50 ft/s.
Projectiles provided by Chesapeake Testing.

Footnotes:

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardcore Defense
Job No.: 21145-004-C
Test Date: 11/2/2018

Test Panel

Description: Steel Plate.

Manufacturer: Hardcore Defense

Sample No.: M193-2

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

Weight:
Plies/Laminates: NA

Date Received: 10/25/2018
Via: UPS
Returned: NA

Setup

Shot Spacing: NIJ-STD-0108.01 Level III
Witness Panel: 0.02 in 2024-T3 Al
Backing Material: NA
Condition: Ambient

Primary Vel. Screens (ft): 6.500, 9.500
Primary Vel. Location (ft): 8.000
Range to Target (ft): 50.000
Target to Witness (in): 6.000

Range No.: 2
Temp: 67.2 °F
BP: 29.5 inHg
RH: 49.3%
Barrel/Gun: NA
Gunner: Jesse Fulk
Recorder: Glenn Snyder

Ammunition

| Projectile | Lot No. | Powder |
|--------------------------------------|----------|--------|
| (1) 5.56 x 45-mm, 55-grain M193 Ball | Military | N 110 |

Applicable Standards or Procedures

- (1) NIJ-STD-0108.01 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 | Obliq. (°) | Footnotes |
|----------|------|-------------|-------------|---------------|-------------|---------------|------------------|-------------|------------|-----------|
| 1 | 1 | 54.6 | 960 | 3125 | 960 | 3125 | 3125 | None | 0.0 | |
| 2 | 1 | 54.8 | 968 | 3099 | 970 | 3093 | 3096 | None | 0.0 | |
| 3 | 1 | 54.9 | 968 | 3099 | 971 | 3090 | 3094 | None | 0.0 | |
| 4 | 1 | 54.9 | 961 | 3122 | 961 | 3122 | 3122 | None | 0.0 | |
| 5 | 1 | 54.8 | 961 | 3122 | 963 | 3115 | 3119 | None | 0.0 | |

Remarks:

Requested velocity: 3050 to 3150 ft/s

The projectiles were provided by NTS-Chesapeake Testing.

The sample was previously impacted 5 times with 5.56 x 45-mm, 55-grain M193 Ball during Job No.: 21145-004-A.

Footnotes:

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardcore Defense
Job No.: 21145-011-1
Test Date: 12/13/2019

Test Panel

Description: Steel.

Manufacturer: Hardcore Defense

Sample No.: M855 V0

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


Weight:
Plies/Laminates: NA

Date Received: 12/10/2019
Via: UPS
Returned: UPS

Setup

Shot Spacing: NIJ-STD-0108.01 Level III
Witness Panel: 0.02 in 2024-T3 Al
Backing Material: NA
Condition: Ambient

Primary Vel. Screens (ft): 6.500, 9.500
Primary Vel. Location (ft): 8.000
Range to Target (ft): 50.000
Target to Witness (in): 6.000

Range No.: 3
Temp: 66.2 °F
BP: 30.0 inHg
RH: 44.9%
Barrel/Gun: 4049
Gunner: C. Peddicord
Recorder: Ramon Chavez

Ammunition

| Projectile | Lot No. | Powder |
|--------------------------------------|----------|--------|
| (1) 5.56 x 45-mm, 62-grain M855 ball | Military | N 110 |

Applicable Standards or Procedures

- (1) NIJ-STD-0108.01 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 | Obliq. (°) | Footnotes |
|----------|------|-------------|-------------|---------------|-------------|---------------|------------------|-------------|------------|-----------|
| 1 | 1 | 62.0 | 961 | 3122 | 963 | 3115 | 3119 | None | 0.0 | |
| 2 | 1 | 62.0 | 963 | 3115 | 966 | 3106 | 3110 | None | 0.0 | |
| 3 | 1 | 62.0 | 961 | 3122 | 961 | 3122 | 3122 | None | 0.0 | |
| 4 | 1 | 62.0 | 971 | 3090 | 971 | 3090 | 3090 | None | 0.0 | |
| 5 | 1 | 62.0 | 966 | 3106 | 966 | 3106 | 3106 | None | 0.0 | |

Remarks:

Requested velocity: 3070-3130 ft/s
All projectiles were provided by NTS-Chesapeake Testing.

Footnotes:

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Hardcore Defense
Job No.: 21145-004-B
Test Date: 10/26/2018

Test Panel

Description: Steel Plate.

Manufacturer: Hardcore Defense

Sample No.: PS Ball

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

Weight:
Plies/Laminates: NA

Date Received: 10/25/2018
Via: UPS
Returned: NA

Setup

Shot Spacing: NIJ-STD-0108.01 Level III
Witness Panel: 0.02 in 2024-T3 Al
Backing Material: NA
Condition: Ambient

Primary Vel. Screens (ft): 6.500, 9.500
Primary Vel. Location (ft): 8.000
Range to Target (ft): 50.000
Target to Witness (in): 6.000

Range No.: 2
Temp: 71.2 °F
BP: 29.9 inHg
RH: 36.4%
Barrel/Gun: CT-4022
Gunner: Jesse Fulk
Recorder: Glenn Snyder

Ammunition

| Projectile | Lot No. | Powder |
|-------------------------------------|---------|--------|
| (1) 7.62 x 39-mm, 123-grain PS Ball | Russian | N 110 |

Applicable Standards or Procedures

- (1) NIJ-STD-0108.01 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 | Obliq. (°) | Footnotes |
|----------|------|-------------|-------------|---------------|-------------|---------------|------------------|-------------|------------|-----------|
| 1 | 1 | 121.8 | 1251 | 2398 | 1254 | 2392 | 2395 | None | 0.0 | |
| 2 | 1 | 121.9 | 1229 | 2441 | 1232 | 2435 | 2438 | None | 0.0 | |
| 3 | 1 | 123.4 | 1244 | 2412 | 1246 | 2408 | 2410 | None | 0.0 | |
| 4 | 1 | 122.7 | 1244 | 2412 | 1244 | 2412 | 2412 | None | 0.0 | |
| 5 | 1 | 122.0 | 1237 | 2425 | 1237 | 2425 | 2425 | None | 0.0 | |

Remarks:

Requested velocity: 2375 to 2425 ft/s
The projectiles were provided by NTS-Chesapeake Testing.

Footnotes: