Project No.: PR162659



4603 Compass Point Road
Belcamp, MD 21017

Preliminary Data

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing
4603B Compass Point Road
Belcamp, MD 21017

Client: Dayton Armor
Project No.: PR162659
Test Date: 08/09/2022

Test Panel

Description: Torso plate tested ICW RAZOR level IIIA vest.

Manufacturer: Dayton Armor

Sample No.: (M193, V0) 20220621-322C

Size: See Remarks
Avg. Thickness: N/A
Thicknesses: N/A

Weight: See Remarks
Plies/Laminates: N/A

Date Received: 08/05/2022
Received Via: UPS Ground
Returned Via: UPS Ground

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, 46.666, 47.000
Primary Vel. Location (ft): 42.000
Range to Target (ft): 50.200
Target to Witness (in): 0.000

Range No.: Range 1
Temp: 67.6 °F
BP: 29.9 inHg
RH: 53.7 %
Barrel/Gun: WC020650
Gunner: Isaiah Lookingbill
Recorder: James Eveland

Ammunition

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

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 9:35 AM; Block No. WC074195; Temp: 94.8 °F; Drop Depths: 19.2 mm,20 mm,21.5 mm,18.3 mm,18.4 mm
(1) NIJ-STD-0101.06 Level III (Modified)
(2) Customer Request

Shot No.	Ammo	Powder/ Seating	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	20.0	55	3045	3284	2841	3285	3285	None	30.5	0	
2	1	20.0	55	3048	3281	2845	3280	3281	None	32.3	0	
3	1	20.0	55	3048	3281	2843	3283	3282	None		0	
4	1	20.0	55	3053	3275	2848	3277	3276	None		0	
5	1	20.0	55	3043	3286	2836	3291	3289	None		0	
6	1	20.0	55	3058	3270	2853	3271	3271	None		0	

Remarks:
Required Velocity: 3250 - 3300 ft/s
Projectile yaw check: 0 degree yaw on all impacts.
Plate Weight: 1.59 lbs. Plate Size: 10.00 in. x 12.00 in.
Vest Weight: 1.60 lbs.

Footnotes:
N/A

DAYTON ARMOR PROPRIETARY INFORMATION

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing
4603B Compass Point Road
Belcamp, MD 21017

Client: Dayton Armor
Project No.: PR162659
Test Date: 08/09/2022

Test Panel

Description: Torso plate tested ICW RAZOR level IIIA vest.

Manufacturer: Dayton Armor

Sample No.: (M193, V0) 20220323-304C

Size: See Remarks
Avg. Thickness: N/A
Thicknesses: N/A

Weight: See Remarks
Plies/Laminates: N/A

Date Received: 08/05/2022
Received Via: UPS Ground
Returned Via: UPS Ground

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, 46.666, 47.000
Primary Vel. Location (ft): 42.000
Range to Target (ft): 50.200
Target to Witness (in): 0.000

Range No.: Range 1
Temp: 67.9 °F
BP: 29.9 inHg
RH: 56 %
Barrel/Gun: WC020650
Gunner: Isaiah Lookingbill
Recorder: James Eveland

Ammunition

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

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 9:55 AM; Block No. WC074195; Temp: 94.6 °F; Drop Depths: 19.8 mm,20.4 mm,18.3 mm,17.7 mm,19.1 mm
(1) NIJ-STD-0101.06 Level III (Modified)
(2) Customer Request

Shot No.	Ammo	Powder/ Seating	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	20.0	55	3055	3273	2850	3275	3274	None	32.1	0	
2	1	20.0	55	3063	3265	2858	3266	3265	None	31.9	0	
3	1	20.0	55	3060	3268	2855	3269	3268	None		0	
4	1	20.0	55	3038	3292	2838	3289	3290	None		0	
5	1	20.0	55	3058	3270	2853	3271	3271	None		0	
6	1	20.0	55	3051	3278	2848	3277	3277	None		0	

Remarks:
Required Velocity: 3250 - 3300 ft/s
Projectile yaw check: 0 degree yaw on all impacts.
Plate Weight: 1.59 lbs. Plate Size: 10.00 in. x 12.00 in.
Vest Weight: 1.43 lbs.

Footnotes:
N/A

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing
4603B Compass Point Road
Belcamp, MD 21017

Client: Dayton Armor
Project No.: PR162659
Test Date: 08/09/2022

Test Panel

Description: Torso plate tested ICW RAZOR level IIIA vest.

Manufacturer: Dayton Armor

Sample No.: (M193, V0) 20220524-319C

Size: See Remarks
Avg. Thickness: N/A
Thicknesses: N/A

Weight: See Remarks
Plies/Laminates: N/A

Date Received: 08/05/2022
Received Via: UPS Ground
Returned Via: UPS Ground

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, 46.666, 47.000
Primary Vel. Location (ft): 42.000
Range to Target (ft): 50.200
Target to Witness (in): 0.000

Range No.: Range 1
Temp: 68 °F
BP: 29.9 inHg
RH: 55.5 %
Barrel/Gun: WC020650
Gunner: Isaiah Lookingbill
Recorder: James Eveland

Ammunition

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

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 11:00 AM; Block No. WC074176; Temp: 95.3 °F; Drop Depths: 19.6 mm,20.3 mm,19.1 mm,17.9 mm,18.4 mm
(1) NIJ-STD-0101.06 Level III (Modified)
(2) Customer Request

Shot No.	Ammo	Powder/ Seating	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	20.0	55	3055	3273	2853	3271	3272	None	28.3	0	
2	1	20.0	55	3033	3297	2828	3300	3299	None	36.6	0	
3	1	20.0	55	3050	3279	2848	3277	3278	None		0	
4	1	20.0	55	3033	3297	2831	3297	3297	None		0	
5	1	20.0	55	3041	3288	2838	3289	3288	None		0	
6	1	20.0	55	3046	3283	2842	3284	3283	None		0	

Remarks:
Required Velocity: 3250 - 3300 ft/s
Projectile yaw check: 0 degree yaw on all impacts.
Plate Weight: 1.59 lbs. Plate Size: 10.00 in. x 12.00 in.
Vest Weight: 1.46 lbs.

Footnotes:
N/A

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing
4603B Compass Point Road
Belcamp, MD 21017

Client: Dayton Armor
Project No.: PR162659
Test Date: 08/09/2022

Test Panel

Description: Torso plate tested ICW RAZOR level IIIA vest.

Manufacturer: Dayton Armor

Sample No.: (M193, V0) 20220329-302B

Size: See Remarks
Avg. Thickness: N/A
Thicknesses: N/A

Weight: See Remarks
Plies/Laminates: N/A

Date Received: 08/05/2022
Received Via: UPS Ground
Returned Via: UPS Ground

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, 46.666, 47.000
Primary Vel. Location (ft): 42.000
Range to Target (ft): 50.200
Target to Witness (in): 0.000

Range No.: Range 1
Temp: 68 °F
BP: 29.9 inHg
RH: 55.5 %
Barrel/Gun: WC020650
Gunner: Isaiah Lookingbill
Recorder: James Eveland

Ammunition

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

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 11:20 AM; Block No. WC074176; Temp: 95 °F; Drop Depths: 19 mm,21 mm,20.2 mm,17 mm,17.6 mm
(1) NIJ-STD-0101.06 Level III (Modified)
(2) Customer Request

Shot No.	Ammo	Powder/ Seating	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	20.0	55	3055	3273	2853	3271	3272	None	16.7	0	
2	1	20.0	55	3043	3286	2840	3286	3286	None	25.1	0	
3	1	20.0	55	3026	3305	2821	3308	3307	None		0	
4	1	20.0	55	3065	3263	2860	3263	3263	None		0	
5	1	20.0	55	3063	3265	2858	3266	3265	None		0	
6	1	20.0	55	3031	3299	2828	3300	3300	None		0	

Remarks:
Required Velocity: 3250 - 3300 ft/s
Projectile yaw check: 0 degree yaw on all impacts.
Plate Weight: 1.57 lbs. Plate Size: 10.00 in. x 12.00 in.
Vest Weight: 1.61 lbs.

Footnotes:

DAYTON ARMOR PROPRIETARY INFORMATION

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing
4603B Compass Point Road
Belcamp, MD 21017

Client: Dayton Armor
Project No.: PR162659
Test Date: 08/09/2022

Test Panel

Description: Torso plate tested ICW RAZOR level IIIA vest.

Manufacturer: Dayton Armor

Sample No.: (M193, V0) 20220603-323B

Size: See Remarks
Avg. Thickness: N/A
Thicknesses: N/A

Weight: See Remarks
Plies/Laminates: N/A

Date Received: 08/05/2022
Received Via: UPS Ground
Returned Via: UPS Ground

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, 46.666, 47.000
Primary Vel. Location (ft): 42.000
Range to Target (ft): 50.200
Target to Witness (in): 0.000

Range No.: Range 1
Temp: 67.7 °F
BP: 29.9 inHg
RH: 52.7 %
Barrel/Gun: WC020650
Gunner: Isaiah Lookingbill
Recorder: James Eveland

Ammunition

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

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 11:35 AM; Block No. WC074193; Temp: 95.8 °F; Drop Depths: 20.1 mm,20 mm,21.3 mm,17.8 mm,19.9 mm
(1) NIJ-STD-0101.06 Level III (Modified)
(2) Customer Request

Shot No.	Ammo	Powder/ Seating	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	20.0	55	3072	3255	2862	3261	3258	None	32.7	0	
2	1	20.0	55	3041	3288	2838	3289	3288	None	25.6	0	
3	1	20.0	55	3046	3283	2843	3283	3283	None		0	
4	1	20.0	55	3046	3283	2840	3286	3285	None		0	
5	1	20.0	55	3048	3281	2845	3280	3281	None		0	
6	1	20.0	55	3046	3283	2843	3283	3283	None		0	

Remarks:
Required Velocity: 3250 - 3300 ft/s
Projectile yaw check: 0 degree yaw on all impacts.
Plate Weight: 1.58 lbs. Plate Size: 10.00 in. x 12.00 in.
Vest Weight: 1.52 lbs.

Footnotes:
N/A

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing
4603B Compass Point Road
Belcamp, MD 21017

Client: Dayton Armor
Project No.: PR162659
Test Date: 08/09/2022

Test Panel

Description: Torso plate tested ICW RAZOR level IIIA vest.

Manufacturer: Dayton Armor

Sample No.: (M193, V0) 20220719-405B

Size: See Remarks
Avg. Thickness: N/A
Thicknesses: N/A

Weight: See Remarks
Plies/Laminates: N/A

Date Received: 08/05/2022
Received Via: UPS Ground
Returned Via: UPS Ground

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, 46.666, 47.000
Primary Vel. Location (ft): 42.000
Range to Target (ft): 50.200
Target to Witness (in): 0.000

Range No.: Range 1
Temp: 67.7 °F
BP: 29.9 inHg
RH: 52.2 %
Barrel/Gun: WC020650
Gunner: Isaiah Lookingbill
Recorder: James Eveland

Ammunition

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

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 11:45 AM; Block No. WC074193; Temp: 95.7 °F; Drop Depths: 19.3 mm,17.6 mm,20.6 mm,17.7 mm,16.9 mm
(1) NIJ-STD-0101.06 Level III (Modified)
(2) Customer Request

Shot No.	Ammo	Powder/ Seating	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	20.0	55	3046	3283	2843	3283	3283	None	23.2	0	
2	1	20.0	55	3063	3265	2858	3266	3265	None	23.7	0	
3	1	20.0	55	3036	3294	2831	3297	3295	None		0	
4	1	20.0	55	3038	3292	2836	3291	3291	None		0	
5	1	20.0	55	3033	3297	2831	3297	3297	None		0	
6	1	20.0	55	3048	3281	2843	3283	3282	None		0	

Remarks:
Required Velocity: 3250 - 3300 ft/s
Projectile yaw check: 0 degree yaw on all impacts.
Plate Weight: 1.57 lbs. Plate Size: 10.00 in. x 12.00 in.
Vest Weight: 1.61 lbs.

Footnotes:
N/A

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing
4603B Compass Point Road
Belcamp, MD 21017

Client: Dayton Armor
Project No.: PR162659
Test Date: 08/09/2022

Test Panel

Description: Torso plate tested ICW RAZOR level IIIA vest.

Manufacturer: Dayton Armor

Sample No.: (PS Ball, V0) 20220603-325B

Size: See Remarks
Avg. Thickness: N/A
Thicknesses: N/A

Weight: See Remarks
Plies/Laminates: N/A

Date Received: 08/05/2022
Received Via: UPS Ground
Returned Via: UPS Ground

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, 46.666, 47.000
Primary Vel. Location (ft): 42.000
Range to Target (ft): 50.200
Target to Witness (in): 0.000

Range No.: Range 1
Temp: 68.8 °F
BP: 29.9 inHg
RH: 57 %
Barrel/Gun: 7.62 x 39mm 24"" Barrel 1-9.5 Twist
Gunner: Isaiah Lookingbill
Recorder: James Eveland

Ammunition

Projectile	Lot No.	Manufacturer	Powder
(1) 7.62 x 39-mm, 123-grain PS Ball	270-R	Russian	N 110

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 2:00 PM; Block No. WC074195; Temp: 93.3 °F; Drop Depths: 19.4 mm,16.7 mm,20.5 mm,20.5 mm,19.2 mm
(1) NIJ-STD-0101.06 Level III (Modified)
(2) Customer Request

Shot No.	Ammo	Powder/ Seating	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	21.0	123	4161	2403	3885	2402	2403	None	32.1	0	
2	1	21.0	123	4100	2439	3824	2441	2440	None	32.3	0	
3	1	21.0	123	4093	2443	3819	2444	2444	None		0	
4	1	21.0	123	4100	2439	3827	2439	2439	None		0	
5	1	21.0	123	4107	2435	3829	2437	2436	None		0	
6	1	21.0	123	4078	2452	3802	2455	2453	None		0	

Remarks:
Required Velocity: 2400 - 2450 ft/s
Projectile yaw check: 0 degree yaw on all impacts.
Plate Weight: 1.53 lbs. Plate Size: 10.00 in. x 12.00 in.
Vest Weight: 1.66 lbs.

Footnotes:

DAYTON ARMOR PROPRIETARY INFORMATION

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing
4603B Compass Point Road
Belcamp, MD 21017

Client: Dayton Armor
Project No.: PR162659
Test Date: 08/09/2022

Test Panel

Description: Torso plate tested ICW RAZOR level IIIA vest.

Manufacturer: Dayton Armor

Sample No.: (PS Ball, V0) 20220628-326C

Size: See Remarks
Avg. Thickness: N/A
Thicknesses: N/A

Weight: See Remarks
Plies/Laminates: N/A

Date Received: 08/05/2022
Received Via: UPS Ground
Returned Via: UPS Ground

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, 46.666, 47.000
Primary Vel. Location (ft): 42.000
Range to Target (ft): 50.200
Target to Witness (in): 0.000

Range No.: Range 1
Temp: 68.8 °F
BP: 29.9 inHg
RH: 57.2 %
Barrel/Gun: 7.62 x 39mm 24"" Barrel 1-9.5 Twist
Gunner: Isaiah Lookingbill
Recorder: James Eveland

Ammunition

Projectile	Lot No.	Manufacturer	Powder
(1) 7.62 x 39-mm, 123-grain PS Ball	270-R	Russian	N 110

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 2:30 PM; Block No. WC074176; Temp: 94.4 °F; Drop Depths: 19.1 mm,19 mm,20.9 mm,19.4 mm,18.9 mm
(1) NIJ-STD-0101.06 Level III (Modified)
(2) Customer Request

Shot No.	Ammo	Powder/ Seating	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	21.0	123	4115	2430	3841	2430	2430	None	32.2	0	
2	1	21.0	123	4085	2448	3810	2450	2449	None	36.0	0	
3	1	21.0	123	4112	2432	3836	2433	2432	None		0	
4	1	21.0	123	4094	2443	3819	2444	2443	None		0	
5	1	21.0	123	4105	2436	3832	2436	2436	None		0	
6	1	21.0	123	4112	2432	3839	2431	2432	None		0	

Remarks:
Required Velocity: 2400 - 2450 ft/s
Projectile yaw check: 0 degree yaw on all impacts.
Plate Weight: 1.53 lbs. Plate Size: 10.00 in. x 12.00 in.
Vest Weight: 1.95 lbs.

Footnotes:
N/A

DAYTON ARMOR PROPRIETARY INFORMATION

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing
4603B Compass Point Road
Belcamp, MD 21017

Client: Dayton Armor
Project No.: PR162659
Test Date: 08/09/2022

Test Panel

Description: Torso plate tested ICW RAZOR level IIIA vest.

Manufacturer: Dayton Armor

Sample No.: (Type 56- MSC, V0) 20220324-317A

Size: See Remarks
Avg. Thickness: N/A
Thicknesses: N/A

Weight: See Remarks
Plies/Laminates: N/A

Date Received: 08/05/2022
Received Via: UPS Ground
Returned Via: UPS Ground

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, 46.666, 47.000
Primary Vel. Location (ft): 42.000
Range to Target (ft): 50.200
Target to Witness (in): 0.000

Range No.: Range 1
Temp: 68.3 °F
BP: 29.9 inHg
RH: 54.7 %
Barrel/Gun: 7.62 x 39mm 24"" Barrel 1-9.5 Twist
Gunner: Isaiah Lookingbill

Ammunition

Projectile	Lot No.	Manufacturer	Powder
(1) 7.62 x 39-mm, 123-grain MSC	NA	Chinese	N 110

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 1:05 PM; Block No. WC074194; Temp: 94.2 °F; Drop Depths: 18.6 mm,19.1 mm,18.9 mm,17.9 mm,19.9 mm
(1) NIJ-STD-0101.06 Level III (Modified)
(2) Customer Request

Shot No.	Ammo	Powder/ Seating	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	21.0	123	4130	2421	3849	2425	2423	None	29.7	0	
2	1	21.0	123	4095	2442	3822	2442	2442	None	35.3	0	
3	1	21.0	123	4125	2424	3849	2425	2425	None		0	
4	1	21.0	123	4110	2433	3834	2434	2434	None		0	
5	1	21.0	123	4073	2455	3797	2458	2457	None		0	
6	1	21.0	123	4105	2436	3827	2439	2437	None		0	

Remarks:
Required Velocity: 2400 - 2450 ft/s
Customer supplied projectiles
Projectile yaw check: 0 degree yaw on all impacts.
Plate Weight: 1.53 lbs. Plate Size: 10.00 in. x 12.00 in.
Vest Weight: 1.60 lbs.

Footnotes:

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing
4603B Compass Point Road
Belcamp, MD 21017

Client: Dayton Armor
Project No.: PR162659
Test Date: 08/09/2022

Test Panel

Description: Torso plate tested ICW RAZOR level IIIA vest.

Manufacturer: Dayton Armor

Sample No.: (Type 56- MSC, V0) 20220324-317B

Size: See Remarks
Avg. Thickness: N/A
Thicknesses: N/A

Weight: See Remarks
Plies/Laminates: N/A

Date Received: 08/05/2022
Received Via: UPS Ground
Returned Via: UPS Ground

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, 46.666, 47.000
Primary Vel. Location (ft): 42.000
Range to Target (ft): 50.200
Target to Witness (in): 0.000

Range No.: Range 1
Temp: 68.5 °F
BP: 29.9 inHg
RH: 55.7 %
Barrel/Gun: 7.62 x 39mm 24"" Barrel 1-9.5 Twist
Gunner: Isaiah Lookingbill

Ammunition

Projectile	Lot No.	Manufacturer	Powder
(1) 7.62 x 39-mm, 123-grain MSC	NA	Chinese	N 110

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 1:30 PM; Block No. WC074194; Temp: 94 °F; Drop Depths: 19.3 mm,18 mm,20.3 mm,20 mm,17.8 mm
(1) NIJ-STD-0101.06 Level III (Modified)
(2) Customer Request

Shot No.	Ammo	Powder/ Seating	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	21.0	123	4149	2410	3868	2413	2412	None	34.7	0	
2	1	21.0	123	4115	2430	3839	2431	2431	None	33.8	0	
3	1	21.0	123	4090	2445	3817	2445	2445	None		0	
4	1	21.0	123	4103	2437	3827	2439	2438	None		0	
5	1	21.0	123	4093	2443	3819	2444	2444	None		0	
6	1	21.0	123	4090	2445	3817	2445	2445	None		0	

Remarks:
Required Velocity: 2400 - 2450 ft/s
Customer supplied projectiles
Projectile yaw check: 0 degree yaw on all impacts.
Plate Weight: 1.52 lbs. Plate Size: 10.00 in. x 12.00 in.
Vest Weight: 1.69 lbs.

Footnotes:
N/A

DAYTON ARMOR PROPRIETARY INFORMATION

BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing
4603B Compass Point Road
Belcamp, MD 21017

Client: Dayton Armor
Project No.: PR162659
Test Date: 08/09/2022

Test Panel

Description: Torso plate tested ICW RAZOR level IIIA vest.

Manufacturer: Dayton Armor

Sample No.: (Type 56- MSC, V0) 20220628-316B

Size: N/A
Avg. Thickness: N/A
Thicknesses: N/A

Weight: N/A
Plies/Laminates: N/A

Date Received: 08/05/2022
Received Via: UPS Ground
Returned Via: UPS Ground

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, 46.666, 47.000
Primary Vel. Location (ft): 42.000
Range to Target (ft): 50.200
Target to Witness (in): 0.000

Range No.: Range 1
Temp: 68.7 °F
BP: 29.9 inHg
RH: 56.5 %
Barrel/Gun: 7.62 x 39mm 24"" Barrel 1-9.5 Twist
Gunner: Isaiah Lookingbill

Ammunition

Projectile	Lot No.	Manufacturer	Powder
(1) 7.62 x 39-mm, 123-grain MSC	82-72-9121	Chinese	N 110

Applicable Standards or Procedures

Clay Drop 1 - Drop Time: 1:55 PM; Block No. WC074195; Temp: 94.1 °F; Drop Depths: 18.8 mm,17.9 mm,21.2 mm,21 mm,18.4 mm
(1) NIJ-STD-0101.06 Level III (Modified)
(2) Customer Request

Shot No.	Ammo	Powder/ Seating	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	21.0	123	4151	2409	3870	2412	2410	None	26.4	0	
2	1	21.0	123	4095	2442	3822	2442	2442	None	30.4	0	
3	1	21.0	123	4073	2455	3797	2458	2457	None		0	
4	1	21.0	123	4090	2445	3817	2445	2445	None		0	
5	1	21.0	123	4125	2424	3849	2425	2425	None		0	
6	1	21.0	123	4112	2432	3836	2433	2432	None		0	

Remarks:
Required Velocity: 2400 - 2450 ft/s
Projectile yaw check: 0 degree yaw on all impacts.
Plate Weight: 1.55 lbs. Plate Size: 10.00 in. x 12.00 in.
Vest Weight: 1.70 lbs.

Footnotes:

DAYTON ARMOR PROPRIETARY INFORMATION