

Element U.S. Space & Defense Test Report for Ballistic Resistance Testing

Project No.: PH00011676 Tested: 31 May 2024 P.O. No.: Signed Quote OH18587

Prepared For

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Further dissemination only as directed by MGCG SPA, June 2024.

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Revision History

Rev.	Description	Issue Date
0	Initial Release	13 June 2024

BALLISTIC RESISTANCE TEST

Element U.S. Space & Defense

4603B Compass Point Road
Belcamp, MD 21017

Client: MGCG SPA
Project No.: PH00011676-1
Test Date: 05/31/2024
Page 1 of 1

Test Panel Description: Ballistic helmet with pads and retention system. Model: P-MICH2000

Manufacturer: MGCG SPA

Sample No.: 2403942001

Size: Medium
Avg. Thickness: 0.438 in
Thicknesses: 0.421 in, 0.450 in,
0.460 in, 0.420 in

Weight: 3.400 lbs
Plies/Laminates: N/A

Date Received: 05/27/2024
Received Via: FEDEX, Express
Saver
Returned Via: FEDEX, Express
Saver

Setup

Shot Spacing: NIJ-STD-0106.01
Witness Panel: 0.02 in 2024-T3 Al
Backing Material: N/A
Condition: Ambient

Primary Vel. Screens (ft): 6.500, 9.500
Primary Vel. Location (ft): 8.000
Range to Target (ft): 16.400
Target to Witness (in): 3.000

Range No.: Range 4
Temp: 67.7 °F
BP: 30 inHg
RH: 48 %
Barrel/Gun: CT-3108
Gunner: Matthew Settle
Recorder: Joshua Petty

Ammunition

Projectile	Lot No.	Manufacturer	Powder
(1) .44 Mag, 240-grain SJHP	J28W	Speer	Accurate No. 5

Applicable Standards or Procedures

- (1) NIJ-STD-0106.01 (Modified)
- (2) NIJ-STD-0101.07 HG2 Threat and velocities only
- (3) 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	Obliq. (°)	Footnotes
1	1	13.6	240.6	2069	1450	2072	1448	1449	None	0	(a)
2	1	13.6	240.1	2101	1428	2103	1427	1427	None	0	(b)
3	1	13.6	240.3	2125	1412	2128	1410	1411	None	0	(c)
4	1	13.6	241.2	2101	1428	2103	1427	1427	None	0	(d)
5	1	13.6	241.0	2086	1438	2091	1435	1436	None	0	(e)

Remarks:

Required Velocity: 1400-1460 ft/s.
Projectile yaw check: 0° yaw on all impacts

Footnotes:

- (a) Crown
- (b) Front
- (c) Back
- (d) Right
- (e) Left

ATTACHMENT A CALIBRATION DATA

Asset Number	Asset Type	Manufacturer	Model	Calibrated	Due
WC027146	Chronograph 1	YIS/Cowden Group, Inc	Chrono USB	10/16/2023	10/16/2024
WC067022	Chronograph 2	YIS/Cowden Group, Inc	Chrono USB	10/16/2023	10/16/2024
EL00004050	Powder Scale	RCBS	1500	2/21/2024	2/21/2025
WC060530	Floor scale	Ohaus	CD-33	2/21/2024	2/21/2025
WC067386	Therm. Clock. Humidity Monitor	Control Company	4040	9/8/2023	9/8/2024
EL00004000	100 ft Tape Measure	Starrett	530-100	11/11/2022	11/11/2024
EL00004086	Thermometer	Control Company	4378	9/21/2023	9/23/2025
EL00004095	DG Tool	Starrett	3753A-6/150	12/13/2023	12/13/2024
WC060685	Angle Block	SPI	91-316-0	11/13/2023	11/13/2025
WC060379	Digital Caliper	Mitutoyo	500-196-20	4/15/2024	4/15/2025
EL00004015	25' Tape	Craftsman	CMHT3765	7/27/2023	7/27/2024
WC078628	25' Tape	Craftsman	CMHT3765	10/23/2023	10/23/2025
EL00004090	Depth Gage	Starrett	3753A-6/150	12/13/2023	12/13/2024
WC064244	Bridge Gage	BDG06	BDG 06	5/3/2024	8/3/2024

END OF REPORT