ACE LINK ARMOR

TESTING BOOKLET

PROTECTION
PERFORMANCE
CONFIDENCE

BALLISTIC TEST REPORT SUMMARIES

SOFT ARMOR PANELS

Independent laboratory test summaries for customer review

Included product families

01 | PE-X Soft Armor Panels

02 | **Dual-Protection** IIIA + Antistab Soft Armor Panels

03 | **FLEXCORE** Soft Armor Panels



PE-X

SOFT ARMOR PANELS

BALLISTIC TESTING REPORT SUMMARY

01 HANDGUN PERFORMANCE

SEPARATE SIX-SHOT V0 TESTS

9MM FMJ RN [4,5]

123.9 gr FMJ RN | NIJ 0101.06 V0 reference | 6-shot pattern
Target velocity: **1,430 +/- 30 ft/s** | Roma Plastilina #1 clay

	RESULT	MAX BFD	MEAN BFD
DRY	6/6 PP	27.32 mm	25.57 mm
WET	6/6 PP	28.09 mm	25.65 mm

BFD shots 1-3: 26.17 / 23.22 / 27.32 mm | **Mean velocity:** 1,442.4 ft/s

BFD shots 1-3: 24.36 / 24.49 / 28.09 mm | **Mean velocity:** 1,432.5 ft/s

Wet conditioning: 30 min +5/-0 min in potable water; water temperature reported at 65.6 F.

9x18 MM MAKAROV EVALUATION [6,7]

95-96 gr FMJ series | NIJ 0101.06 V0 reference | 6-shot pattern
Parameter table: **1,100 +/- 50 ft/s** | Roma Plastilina #1 clay

	RESULT	MAX BFD	MEAN BFD
DRY	6/6 PP	18.30 mm	17.62 mm
WET	6/6 PP	18.16 mm	16.34 mm

BFD shots 1-3: 18.30 / 16.65 / 17.92 mm | **Mean velocity:** 1,136.5 ft/s

BFD shots 1-3: 16.42 / 14.45 / 18.16 mm | **Mean velocity:** 1,157.2 ft/s

Wet conditioning: 30 min +5/-0 min in potable water; water temperature reported at 65.2 F.

.44 MAGNUM [1]

Speer 240 gr SJHP | NIJ-STD-0101.06 Level IIIA (Modified)
Customer-requested | Ambient

6/6: no penetration

Max BFS: **36.8 mm** | Calculated mean BFS: **25.9 mm**

.357 SIG [3]

125.2 gr FMJ FN | NIJ 0101.06 | V0 | Figure 14 pattern
Stand-alone panel | Ambient condition not stated in report

6/6 PP; no complete penetration

Max BFD: **25.43 mm** | Calculated mean BFD: **24.20 mm** (shots 1-3)

Reading the results: BFS/BFD = dent depth in the clay backing. PP = partial penetration; CP = complete penetration. BFD was recorded only for shots 1-3 in the ETL handgun reports; N/A is not zero.

PE-X

SOFT ARMOR PANELS

BALLISTIC TESTING REPORT SUMMARY

02 FRAGMENT PERFORMANCE / V50

5 GR F3 [8]

STANAG 2920 | Ambient | 0 deg impacts | Air backing | 0.020-in 2024-T3 witness | 16 shots total

996.7 m/s

Reported V50 = approximately **3,270 ft/s**

V50 CONFIGURATION	HIGH PARTIAL
3 x 3	**1,002.5 m/s**

LOW COMPLETE	RANGE OF RESULTS
970.5 m/s	**37.8 m/s**

17 GR FSP / F5 [9]

Customer V50 test | Ambient | 0 deg impacts | Air backing | 0.020-in 2024-T3 aluminum witness | 12 shots

3,309.45 ft/s

Maximum tested velocity = approximately **1,008.7 m/s**

SHOT RESULTS	COMPLETE PENETRATIONS
12 / 12 PP	**0**

V50	REPORT CONCLUSION
Not calculated	**Meets 550 m/s minimum**

V50 context: A V50 is a ballistic-limit estimate based on a mix of complete and partial penetrations. For the 17 gr FSP test, ETL did not calculate V50 because every impact remained a partial penetration through the highest tested velocity.

03 STAB PERFORMANCE / LEVEL 1

AMBIENT

NIJ-0115.00 | Customer-requested | P1A and S1 blades | NIJ backing | Drop mass: 1.91 kg

Energy / angle	P1A energy (J)	P1A depth (mm)	S1 energy (J)	S1 depth (mm)
E1 / 0 deg	24.02	5.00	24.03	0.00
E2 / 0 deg	36.03	11.00	35.96	3.00
E1 / 45 deg	24.12	0.00	24.41	0.00

Standards context: Level 1 nominal energies: E1 = 24 J; E2 = 36 J overtest. Penetration limits: 7 mm / 20 mm respectively. All six reported depths are below the corresponding limits; this is not a certification finding.

TEST REPORTS & SPECIMENS

[1] Element U.S. Space & Defense: PH00015321, Rev. 0, p. 3; sample "(.44 Mag, V0) HG1", size C2.
[2] Element U.S. Space & Defense: PH00016604 test sheet; A13-3APEX-2-M B, sample 250424-36, size MD.
[3] Energetic Test Labs: ETL-TR-ACL-26-152-0104, Rev. A; .357 SIG, specimen 15 in x 25 in.
[4] Energetic Test Labs: ETL-TR-ACL-26-237-0101, Rev. A; SAI-1, A15, XXX-Large, 9mm dry.
[5] Energetic Test Labs: ETL-TR-ACL-26-237-0102, Rev. A; SAI-2, A15, XXX-Large, 9mm water-submerged.
[6] Energetic Test Labs: ETL-TR-ACL-26-237-0103, Rev. A; SAI-3, A15, XXX-Large, dry Makarov-comparator evaluation.
[7] Energetic Test Labs: ETL-TR-ACL-26-237-0104, Rev. A; SAI-4, A15, XXX-Large, water-submerged Makarov / DDR evaluation.
[8] Susquehanna Labs: Test Report 0006-0005, Rev. 0; A-SAP-A15-3APEX, Large; 5 gr F3; STANAG 2920; 27 Aug 2026.
[9] Energetic Test Labs: ETL-TR-ACL-26-237-0105, Rev. A; SAI-F5, A15, XXX-Large; 17 gr FSP; 25 Aug 2026.

Scope: Results apply to the identified specimens and stated test conditions. These reports do not establish full NIJ certification, equivalent performance across every PE-X size or vest configuration, or rifle protection.

DUAL-PROTECTION

IIIA + ANTISTAB
SOFT ARMOR PANELS

BALLISTIC TESTING REPORT SUMMARY

01 HANDGUN PERFORMANCE

SEPARATE SIX-SHOT SERIES

NIJ-STD-0101.06 Level IIIA (abbreviated, modified) | V0 | Oregon Ballistic Laboratories [1]
Range: 15 ft | Backing: 5.5-in clay block with 0.75-in plywood | Velocities shown are the reported screen averages.

.44 MAGNUM [1]

240 gr SJHP | Semi-jacketed hollow point
Ambient | Not submerged | Ammunition lot #4453

Shot	Velocity (ft/s)	Angle	BFS (mm)
1	1,416	0°	37.97
2	1,434	0°	34.47
3	1,434	0°	33.79
4	1,411	30°	-
5	1,437	45°	-
6	1,424	0°	-

6/6 PP; no complete penetration. Lab result: **PASS.**
Max. recorded BFS: **37.97 mm** (3 readings).

9mm [1]

124 gr FMJ | Full metal jacket
Ambient | Submerged | Ammunition lot #23558

Shot	Velocity (ft/s)	Angle	BFS (mm)
1	1,484	0°	29.56
2	1,485	0°	26.47
3	1,494	0°	27.44
4	1,482	30°	-
5	1,497	45°	-
6	1,471	0°	-

6/6 PP; no complete penetration. Lab result: **PASS.**
Max. recorded BFS: **29.56 mm** (3 readings).

Reading the results: BFS/BFD = dent depth in the clay backing [S1]. PP = partial penetration. A dash means no BFS value is listed; shots 4-6 are not zero readings. [1]

02 BLADE & SPIKE PERFORMANCE / LEVEL 1

NIJ-STD-0115.00 | SL [2]: customer-requested | OBL [3,4]: abbreviated / modified Level 1 blade & spike tests.
SL: ambient / NIJ backing. OBL [3]: ambient. OBL [4]: new / NIJ foam.

Each result cell shows strike energy (J) / penetration depth (mm). Columns group the impacts by energy and angle.

Lab / report	Threat	E1 at 0° J / mm	E2 at 0° J / mm	Additional E1 J / mm	Additional E1 angle
SL [2]	**P1/A**	24.14 / 1.0	36.54 / 6.0*	24.36 / 0.0	45°
SL [2]	**S1**	24.12 / 0.0	36.09 / 1.0	24.28 / 0.0	45°
SL [2]	**Spike**	24.96 / 4.0	36.30 / 13.0	24.22 / 0.0	0°
OBL [3]	**P1**	24.07 / >1	36.43 / 10.77	23.98 / -	45°
OBL [3]	**S1**	23.92 / -	36.35 / -	24.03 / -	45°
OBL [3]	**Spike**	24.27 / -	36.22 / 12.28	24.09 / -	45°
OBL [4]	**P1**	23.95 / -	35.74 / -	23.73 / -	45°
OBL [4]	**S1**	24.24 / -	35.79 / -	23.50 / -	45°
OBL [4]	**Spike**	24.25 / -	36.19 / 9.09	23.87 / -	45°

***Repeated impact:** SL P1/A first recorded 35.22 J / 10.0 mm, flagged below required energy. The E2 cell shows the replacement impact: 36.54 J / 6.0 mm. [2]
OBL dashes and **>1** are retained as reported, not converted to zero. OBL reports state that their samples satisfied the test requirements. [3,4]
NIJ reference criteria [S2]: Level 1 E1 = 24 J, penetration limit 7 mm; E2 = 36 J overtest, limit 20 mm. Reference criteria do not establish certification.

TEST REPORTS & SOURCE REFERENCES
[1] Oregon Ballistic Laboratories (OBL): DDT082726; samples 44754 (.44 Magnum) / 44755 (9mm), pp. 2-4.
[2] Susquehanna Labs (SL): 0006-0005, Rev. 0; tests A-C, pp. 2, 5 and 8.
[3] OBL: DDT082126; samples 44636 (P1), 44637 (S1), 44640 (Spike), pp. 2-5.
[4] OBL: 44418 (P1), 44419 (S1), 44422 (Spike), pp. 2-4.
[S1] NIJ 0101.06, sec. 3.8 | [S2] NIJ 0115.00, sec. 2.2 / 4.6.3 (standards context only).

Scope: Results apply to the reported specimens and test conditions. Abbreviated/modified tests and laboratory PASS findings do not establish NIJ certification, a complete NIJ test program, or performance of every panel size or vest configuration.

FLEXCORE

SOFT ARMOR PANELS
HANDGUN TEST DATA

BALLISTIC TESTING REPORT SUMMARY

01 HANDGUN PERFORMANCE

SEPARATE SIX-SHOT SERIES

NIJ-STD-0101.06 Level IIIA / modified | Separate six-shot series | ETL [1] + NTS-Chesapeake Testing [2]
.44 Mag [2]: 5.5-in clay/plywood backing, ambient. 9mm [1]: Roma Plastilina #1 clay backing. Velocities shown are report averages.

.44 MAGNUM [2]

240 gr SJSP | Semi-jacketed soft point
15 x 15 in panel | Sample B - Flexcore PE135
Target velocity: 1,430 ± 30 ft/s

Shot	Velocity (ft/s)	Angle	Def. (mm)
1	1,436	0°	35.1
2	1,452	0°	37.9
3	1,437	0°	38.1
4	1,440	30°	-
5	1,437	45°	-
6	1,450	0°	-

6/6 no penetration recorded.
Max. recorded deformation: 38.1 mm (3 readings).
Mean deformation: 37.03 mm. Shots 4–6 = N/A.

9mm [1]

124.2 gr FMJ RN | Full metal jacket, round nose
XL panel | FLX2 perimeter stitch
Target velocity: 1,305 ± 30 ft/s

Shot	Velocity (ft/s)	Angle	BFD (mm)
1	1,299.32	0°	23.19
2	1,329.35	0°	27.99
3	1,308.98	0°	29.98
4	1,320.65	30°	23.64
5	1,309.86	45°	20.38
6	1,297.05	0°	21.11

6/6 PP; no complete penetration recorded.
Max. recorded BFD: 29.98 mm (6 readings).
Calculated mean BFD: 24.38 mm.

02 TESTED SAMPLE DETAILS

Reported field	.44 Magnum specimen [2]	9mm specimen [1]
Model / configuration	Sample B - Flexcore PE135 / 5.86 PE135	A13-3A-FLX-2 / FLX2 perimeter stitch
Sample size	15 x 15 in	XL
Reported weight / thickness	2.010 lb / N/A	2.025 lb / 0.34 in
Laboratory environment	67.4°F / 48.2% relative humidity	68.98°F / 55.2% relative humidity

The .44 Magnum result is taken from the NTS-Chesapeake Testing worksheet provided for Flexcore. [2]

03 READING THE RESULTS

PP / CP: Partial / complete penetration. The ETL 9mm report marks all shots PP; the NTS .44 Magnum worksheet reports "None" under penetration.

BFD / deformation: Indentation depth in the backing material. The NTS .44 Magnum source uses the label "Deformation (mm)". [1,2,S1]

N/A entries: Dashes in this summary reflect source values that were not reported, not zero deformation. This applies to .44 Magnum shots 4–6. [2]

Report status: These two test series summarize reported sample results only; they do not establish NIJ certification or a complete NIJ test program. [1,2,S1]

TEST REPORTS & SOURCE REFERENCES

[1] Energetic Test Labs: ETL-TR-ACL-25-230-0103, Rev. A, p. 1 (9mm).
[2] NTS-Chesapeake Testing: Project No. 21639-046-3, test date 07/20/2021, p. 1 (.44 Magnum, Sample B - Flexcore PE135).
[S1] NIJ-STD-0101.06, sec. 3.8 (BFS/BFD terminology context only).

Scope: Results are limited to the listed specimens and conditions; they do not establish performance for every FLEXCORE size or vest configuration.

IMPORTANT NOTICE

This booklet summarizes selected results from independent laboratory test reports.

Results apply only to the specific samples and test conditions stated in each summary.

These summaries do not by themselves constitute NIJ certification or a complete compliance program unless expressly stated.

Full test reports and additional technical information are available upon request.



CONTACT

ACE LINK ARMOR
ACELINKARMOR.COM
INFO@ACELINKUSA.COM

Thank you for reviewing Ace Link Armor testing data.

