

BALLISTIC RESISTANCE TEST												
Element U.S. Space & Defense -Belcamp 4603B Compass Point Road Belcamp, MD 21017								Client: Ace Link Industrial Inc. Project No.: PH00011788 Test Date: 06/18/2024 Page 1 of 1				
Test Panel		Description: Dual Protection Soft Armor () SN: 231114-75										
Manufacturer: Ace Link Industrial Inc.						Sample No.: (.44 Mag, V0) Soft Panel B-2						
Size: XXL Avg. Thickness: N/A Thicknesses: N/A				Weight: 3.270 lbs Plies/Laminates: N/A				Date Received: 05/31/2024 Received Via: UPS Ground Returned Via: UPS Ground				
Setup												
Shot Spacing: NIJ-STD-0101.06 Level IIIA Witness Panel: Clay Backing Material: 5.5-in clay/plywood Condition: Ambient				Primary Vel. Screens (ft): 6.500, 6.833, 11.166, 11.500 Primary Vel. Location (ft): 9.000 Range to Target (ft): 17.200 Target to Witness (in): 0.000					Range No.: Range 2 Temp: 66.1 °F BP: 30 inHg RH: 48 % Barrel/Gun: EL00000169 Gunner: Adam Beach Recorder: Jacob Arisman			
Ammunition												
Projectile				Lot No.		Manufacturer			Powder			
(1) .44 Mag, 240-grain SJHP				J28W		Speer			Accurate No. 5			
Applicable Standards or Procedures												
Clay Drop 1 - Drop Time: 11:00 AM; Block No. WC074187; Temp: 96.8 °F; Drop Depths: 21.3 mm,20.3 mm,21.7 mm,19.9 mm,20.6 mm (1) Customer Request (2) NIJ-STD-0101.06 Level IIIA (Modified)												
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	14.2	241	3525	1418	3050	1421	1420	None	27.3	0	(a)
2	1	14.2	241	3551	1408	3073	1410	1409	None	25.8	0	
3	1	14.2	241	3503	1427	3038	1426	1427	None	29.4	0	
4	1	14.2	241	3529	1417	3056	1418	1417	None	19.1	30	
5	1	14.2	241.1	3572	1400	3085	1405	1402	None	4.3	45	
6	1	14.2	241.2	3542	1412	3069	1412	1412	None	23.7	0	
Remarks: Required Velocity: 1400 - 1460 ft/s Projectile Yaw Check: 0° Yaw on all Impacts.												
Footnotes: (a) Projectile exited the side of the sample and embedded into the clay.												

STAB RESISTANCE TEST

Element U.S. Space and Defense

4603B Compass Point Rd
Belcamp, MD 21017

Client: Ace Link Armor

Project No.: PH00011788

Test Date: 6/20/2024

Test Panel

Description: Dual Protection Soft Armor (28FDC215+6UD220+EVA)

Manufacturer: Ace Link Armor

Sample No.: B-1

Model No.: A-SAP-A15-3AS1
Lot No.: NA
Gender: NA
Size: 2XL

Plies: NA
Weight: 0.00 lbs.
Coverage Area: NA
Areal Density: NA

Date Received: 05/31-2024
Via: UPS
Returned: UPS

Setup

Temp: 71 °F
BP: 29.99 inHg
RH: 52 %

Armor Condition: Ambient
Drop Mass: 1.91 kg
Witness Material: NA

Ball Drop Bounces: 15 in. 15 in.
Tester: Kyler Reisler
Recorder: Kyler Reisler

Applicable Standards or Procedures

(1) AS PER CUSTOMER REQUEST

(2) NIJ-0115.00

Impact No.	Threat	Tip Sharpness (HRC)	Level	Energy Level	Angle of Incidence (deg.)	Drop Height (m)	Impact Velocity (m/s)	Strike Energy (J)	Depth of Penetration (mm)	Footnotes
1	Spike	-60	1	E1	0	1.30	5.01	23.97	0	
2	Spike	-60	1	E2	0	1.95	6.14	36.00	11	
3	Spike	-60	1	E1	45	1.30	5.00	23.88	0	

Remarks:

Test Threat Information Updated KCN 3.28.2022

Spike - Manufacturer: Contra Threat Sciences LLC; Lot No.: 7NIJ110921

Footnotes:

Order Information		Sample Information			
Customer Name	Ace Link	ETL Sample ID	ETL-TSI-ACL-25-282-0101	Size (in)	2XL
Customer ID	ACL	Sample Type	Soft Armor	Shape/Curvature	FLAT
Quote #	VERBAL	Model Number	A15-3ASI-2XL	Feature Details	N/A
Customer PO #	VERBAL	Description	A15-3ASI V50	Weight (lbs)	3.362
Test Order #	ETL-TO-ACL-25-282	Lot Number	N/A	Thickness (in)	0.432
Test Plan #	ETL-TP-ACL-25-282-0101	Serial Number	N/A	Construction	N/A

Ballistic Evaluation								Test Parameters			
Range Configuration								Test Type	Reference Spec.	No. Shots	Shot Pattern
Temperature	Relative Humidity	Barrel End to Target	Target to Velocity	Target to Witness	Vel Set 1 Dist	Vel Set 1 Dist	Range #	Ballistic Limit - V50	Customer	12	ETL STANDARD
(°F)	(%)	(ft)	(ft)	(in)	(ft)	(ft)		Threat	Velocity (ft/s)	Velocity Tolerance (ft/s)	
70.5	42.5	15	8.21	6	5.33	4.33	1	17gr FSP	1969	±500	
Equipment/Ammunition Details								Backing		Witness Panel	
Receiver	Barrel	Threat	Propellant	Propellant Lot	Casing			Air		Cardboard, 0.125" Thk	
HSP #1187	ETL-BA-22-016	17gr FSP	Accurate #2	50711242026	308 Winchester						

Clay Validation									
	Drop 1 (mm)	Drop 2 (mm)	Drop 3 (mm)	Drop 4 (mm)	Drop 5 (mm)	Avg. (mm)	Temp. (°F)	Box #	Drop Time
Pre-Test:									
Post-Test:									

Ballistic Evaluation Data												
Shot #	Proj. Wt (gr)	Pwdr Wt (gr)	Time 1 (µs)	Time 2 (µs)	V1 (ft/s)	V2 (ft/s)	Vavg (ft/s)	Obliq. (°)	Result	BFD (mm)	Shot Location	Notes
1	17.0	9.0	2425	1963	2197.94	2205.81	2201.88	0	CP	N/A	TL	
2	17.0	7.8	2602	2109	2048.42	2053.11	2050.77	0	CP	N/A	ML	
3	17.0	6.6	3168	2565	1682.45	1688.11	1685.28	0	PP	N/A	ML	
4	17.0	7.1	3295	2662	1617.60	1626.60	1622.10	0	PP	N/A	BL	
5	17.0	7.4	2910	2358	1831.62	1836.30	1833.96	0	PP	N/A	TR	
6	17.0	7.8	2692	2183	1979.94	1983.51	1981.73	0	CP	N/A	MR	
7	17.0	7.5	2714	2200	1963.89	1968.18	1966.04	0	CP	N/A	MR	
8	17.0	7.2	2774	2249	1921.41	1925.30	1923.36	0	PP	N/A	BR	
9	17.0	7.5	2754	2229	1935.37	1942.58	1938.98	0	PP	N/A	TC	
10	17.0	7.8	2576	2086	2069.10	2075.74	2072.42	0	CP	N/A	C	
11	17.0	7.5	2695	2185	1977.74	1981.69	1979.72	0	PP	N/A	BC	
12	17.0	7.8	2636	2136	2022.00	2027.15	2024.58	0	CP	N/A	BC	

Test Remarks					Acronyms		
V50 (REGRESSION): 1968.4 ft/s V05 (REGRESSION): 1928.8 ft/s V50 (MIL-STD-662F, 3X3): 1969.07 ft/s					Evaluation	Shot Locations	Units
					SIP - Stop in Plate	T - Top	F - Fahrenheit
					SIV - Stop in Vest	B - Bottom	% - Percent
					PP - Partial Penetration	M - Middle	inHg - Inches of Mercury
					CP - Complete Penetration	C - Center	in - Inches
					EV - Excessive Velocity	L - Left	ft - Feet
					IV - Insufficient Velocity	R - Right	mm - Millimeter
					UH - Unfair Hit	CR - Crown	° - Degrees
					STEL - Shot-to-Edge Distance Incorrect	VP - Viewport	µs - Microseconds
					STSI - Shot-to-Shot Distance Incorrect		ft/s - Feet per Second
					ICW - In Conjunction With		

Test Report History				
Report Revision	Operator 1	Operator 2	Approver	Notes
A	MDenhart	ILyon	AGibson	Initial Release

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