



December 19, 2018

Legacy Safety & SECURITY
4917 Main CT
Davenport, IA 52806
Attn: Robert Hausman

Dear Mr. Hausman:

In accordance with your instructions, Oregon Ballistic Laboratories conducted Ballistic Resistance (V_0) testing on one sample.

The sample was tested in accordance with NIJ-STD-0106.01 Level II (abbrev) (mod) in an indoor range with the muzzle of the test barrel mounted 15 feet away from the target and positioned to produce 0-degree obliquity impacts. Four infrared light screens, in conjunction with time-based frequency counters, were positioned such that projectile velocity was measured 8.25 feet from the target. Penetrations were determined by examination of a 5.5-inch clay block mounted behind the test sample. Results for all testing performed for this purpose are summarized in the following table.

Test Sample			Ballistic Threat				Results			
OBL No.:	S/N	Weight	Projectile	Shots	Velocity (fps)		Penetrations	BFD (mm)		Pass/Fail
		(lbs.)			Min.	Max.		Min.	Max.	
20534	N/A	1.75	9mm FMJ	7	1274	1313	0	21.53	27.63	<u>PASS</u>

Samples will be maintained at Oregon Ballistic Laboratories for 30 days and then discarded, unless other instructions are received. If you have any further questions or concerns, please contact us.

Sincerely,

Brandon Bertsch
Oregon Ballistic Laboratories



This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.



OREGON BALLISTIC LABORATORIES

BALLISTIC RESISTANCE TEST - V₀

Customer: Legacy Safety and Security
OBL ID#: 20534
Test Date: 12/18/2018
Purchase Order:

TEST SAMPLE

Serial No.: N/A
Model No.: N/A
Lot No.: N/A
Plies: N/A
Description: Front Soft Armor Panel

Size: L
Weight (lb.): 1.75
Thickness:
Avg. Thk. (in):

RANGE SET-UP

Range to Target: 15 ft. Range #: 3
Screen Dist. Vel. 1 (ft.): 5 Temperature: 68.9 °F
Screen Dist. Vel. 2 (ft.): 5 Bar. Pressure: 29.94 in. Hg
Screen 4 to target (ft): N/A Rel. Humidity: 52.8 %
Primary Vel. Location: 8.25 ft. from target Sample Temp. Amb. °F
Striking Velocity: No Recorder: Jesse Crisanti
Target to Witness: N/A Gunner: Darius Nuttbrock
Witness Panel: N/A
Backing Material: 5.5" clay block w/ 3/4" plywood backing
Obliquity: 0 Degrees
Barrel: 9mm Luger/1:10/4.5"

Pre Test:
Clay Drops (mm): 21.21 19.66 21.17 18.74 20.77
Drop Avg (mm): 20.31
Clay Temp °F: 97.5
Clay Box #: 2
Post Test:
Clay Drops (mm): 17.21 17.26 18.00 19.77 18.60
Drop Avg (mm): 18.17
Clay Temp °F: 97.5

AMMUNITION

Projectile: 9mm 124gr. FMJ Lot #23558

Powder: D032-03

STANDARDS / PROCEDURES

NIJ-STD-0101.06 Level II (abbrev)

Required Velocity: 1305 fps ± 30 fps

SHOT NO.	PROJECTILE WT. (gr.)	POWDER WT. (gr.)	TIME 1 μs (10 ⁻⁶)	TIME 2 μs (10 ⁻⁶)	VELOCITY 1 ft/s	VELOCITY 2 ft/s	AVERAGE VELOCITY	PENET. P/C	OBLIQUITY	CALIPER BFD	NOTES
1	125.1	5.6	3918	3912	1276	1278	1277	P	0°	22.78	
2	124.5	5.6	3924	3924	1274	1274	1274	UH	0°	21.53	Insufficient Velocity / Partial
3	125.3	5.7	3841	3837	1302	1303	1303	P	0°	27.63	
4	124.1	5.7	3871	3867	1292	1293	1293	P	30°		
5	125.5	5.7	3812	3808	1312	1313	1313	P	45°		
6	125.4	5.7	3863	3858	1294	1296	1295	P	0°		
7	125.4	5.7	3849	3845	1299	1300	1300	P	0°	24.40	

REMARKS:

P=Partial Penetration
C=Complete Penetration
UH=Unfair Hit

TEST RESULTS:

Test sample satisfied the ballistic requirements given.

FOOTNOTES:

Sample was subjected to Armor Submersion per section 7.8.2