



July 1, 2020

RMA Armament  
 22800 Dewey Rd  
 Centerville, IA 52544  
 ATTN: Blake Waldrop

Dear Mr. Waldrop:

In accordance with your instructions, Oregon Ballistic Laboratories conducted Ballistic Resistance ( $V_0$ ) testing on two samples.

The samples were tested in accordance with NIJ-STD-0101.07 (draft) RF1/RF2 (abbreviated) (modified) in an indoor range with the muzzle of the test barrel mounted 25 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.:	Model No.:	Weight (lbs.)	Projectile	Shots	Velocity (fps)	Penetrations	BFD (mm)	Pass/Fail
25034	SAS-AR5001012-SGL	8.77	Type 56 MSC	1	2408	0	6.68	<b><u>PASS</u></b>
			M80, Steel	1	2770	0	27.19	<b><u>PASS</u></b>
			M855	1	2848	0	1.20	<b><u>PASS</u></b>
25035	SAS-AR5501012-SGL-FC	9.3	Type 56 MSC	1	2890	0	14.36	<b><u>PASS</u></b>
			M80, Steel	1	2996	0	36.16	<b><u>PASS</u></b>
			M193	1	3212	0	11.59	<b><u>PASS</u></b>
			M855	1	3359	0	0.30	<b><u>PASS</u></b>

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 pertains only to the samples tested and must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.



# BALLISTIC RESISTANCE TEST - V<sub>0</sub>

Customer: RMA Armament NC  
 OBL ID#: 25034  
 Date Rcv'd: 5/26/2020  
 Test Date: 7/1/2020  
 Purchase Order: 866-978-7103

**TEST SAMPLE**  
 Model No.: SAS-AR5001012-SGL      Size (in.): 10 x 12  
 Lot No.: N23166      Weight (lb.): 8.77  
 Sample No.: N/A      Thickness:  
 Plies: N/A      Avg. Thk. (in):  
 Description: Level III Hard Armor Plate

**RANGE SET-UP**  
 Range to Target: 25 ft.      Range #: 2      Pre Test:  
 Screen Dist. Vel. 1 (ft.): 5      Temperature: 69.4 °F      Clay Drops (mm): 20.04    20.41    20.97    19.89    19.38  
 Screen Dist. Vel. 2 (ft.): 5      Bar. Pressure: 30.05 in. Hg      Drop Avg (mm): 20.14  
 Screen 4 to target (ft): N/A      Rel. Humidity: 53.9 %      Clay Temp °F: 96.8  
 Primary Vel. Location: 8.25 ft. from target      Sample Temp. Amb. °F      Clay Box #: 3  
 Striking Velocity: No      Recorder: Josh Humphreys      Post Test:  
 Target to Witness: N/A      Gunner: Aubrey Rogers      Clay Drops (mm): 17.30    17.46    18.08    17.27    17.89  
 Witness Panel: N/A      Drop Avg (mm): 17.60  
 Backing Material: 5.5" clay block w/ 3/4" plywood backing      Clay Temp °F: 93.7  
 Obliquity: 0 Degrees  
 Barrel: .308/1:9/30"

**AMMUNITION**  
 Projectile: 7.62x39mm Type 56 MSC      Powder: VihtaVuori N133

**STANDARDS / PROCEDURES**  
 NIJ-STD-0101.07 (abbrev) (mod)      Required Velocity: 2400 fps ± 50 fps

SHOT NO.	PROJECTILE WT. (gr.)	POWDER WT. (gr.)	TIME 1 μs (10 <sup>-6</sup> )	TIME 2 μs (10 <sup>-6</sup> )	VELOCITY 1 ft/s	VELOCITY 2 ft/s	AVERAGE VELOCITY	PENET. P/C	OBLIQUITY	CALIPER BFD	NOTES
1	122.0	33.0	2076	2076	2408	2408	2408	P	0°	6.68	
2	148.5	41.0	1803	1807	2773	2767	2770	P	0°	27.19	Switched to M80 Ball / 2700 FPS
3	62.2	24.0	1753	1758	2852	2844	2848	P	0°	1.20	Switched to M855 / 2800 FPS

**REMARKS:**  
 P=Partial Penetration  
 C=Complete Penetration  
 UH=Unfair Hit

**TEST RESULTS:**  
 Test sample satisfied the ballistic requirements given.  
**FOOTNOTES:**  
 Sample was not subjected to Armor Drop Test.  
 Sample was not subjected to Armor Submersion.

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

Customer: RMA Armament NC  
 OBL ID#: 25035  
 Date Rcv'd: 5/26/2020  
 Test Date: 7/1/2020  
 Purchase Order: 866-978-7103

### TEST SAMPLE

Model No.: SAS-AR5501012-SGL-FC  
 Lot No.: ES0530  
 Sample No.: N/A  
 Plies: N/A  
 Description: Level III Hard Armor Plate

Size (in.): 10 x 12  
 Weight (lb.): 9.3  
 Thickness:  
 Avg. Thk. (in):

### RANGE SET-UP

Range to Target: 25 ft.  
 Screen Dist. Vel. 1 (ft.): 5  
 Screen Dist. Vel. 2 (ft.): 5  
 Screen 4 to target (ft): N/A  
 Primary Vel. Location: 8.25 ft. from target  
 Striking Velocity: No  
 Target to Witness: N/A  
 Witness Panel: N/A  
 Backing Material: 5.5" clay block w/ 3/4" plywood backing  
 Obliquity: 0 Degrees  
 Barrel: .308/1:9/30"

Range #: 2  
 Temperature: 69.4 °F  
 Bar. Pressure: 30.05 in. Hg  
 Rel. Humidity: 53.9 %  
 Sample Temp. Amb. °F  
 Recorder: Josh Humphreys  
 Gunner: Aubrey Rogers

Pre Test:  
 Clay Drops (mm): 20.04 20.41 20.97  
 Drop Avg (mm): 20.47  
 Clay Temp °F: 96.8  
 Clay Box #: 3  
 Post Test:  
 Clay Drops (mm): 17.30 17.46 18.08  
 Drop Avg (mm): 17.61  
 Clay Temp °F: 93.7

### AMMUNITION

Projectile: 7.62x39mm Type 56 MSC

Powder: VihtaVuori N133

### STANDARDS / PROCEDURES

NIJ-STD-0101.07 (abbrev) (mod)

Required Velocity: 2900 fps ± 50 fps

SHOT NO.	PROJECTILE WT. (gr.)	POWDER WT. (gr.)	TIME 1 $\mu$ s (10 <sup>-6</sup> )	TIME 2 $\mu$ s (10 <sup>-6</sup> )	VELOCITY 1 ft/s	VELOCITY 2 ft/s	AVERAGE VELOCITY	PENET. P/C	OBLIQUITY	CALIPER BFD	NOTES
1	123.6	40.5	1730	1730	2890	2890	2890	P	0°	14.36	
2	147.8	44.8	1667	1671	2999	2992	2996	P	0°	36.16	Switched to M80 Ball / 3000 FPS
3	55.1	26.5	1552	1562	3222	3201	3212	P	0°	11.59	Switched to M193 / 3250 FPS
4	62.5	29.0	1480	1497	3378	3340	3359	P	0°	0.30	Switched to M855 / 3400 FPS

### REMARKS:

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

### TEST RESULTS:

Test sample satisfied the ballistic requirements given.

### FOOTNOTES:

Sample was not subjected to Armor Drop Test.  
 Sample was not subjected to Armor Submersion.