



April 11, 2018

RMA Armament, Inc.
1479 Gillespie St. Suite 303
Rock Island, IL 61201
ATTN: Blake Waldrop

Dear Mr. Waldrop:

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-0108.01 (modified) in an indoor range with the muzzle of the test barrel mounted 50 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 piece of 0.020-inch 2024-T3 aluminum witness mounted 6 inches behind and parallel to 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 (lbs.)	Average Thickness (in)	Projectile	Shots	Velocity (fps)		Penetrations	Pass/Fail
						Min.	Max.		
19094	N/A	33.0	0.947	M80 Copper	6	2765	2790	0	<u>PASS</u>
				M193	5	3095	3175	0	<u>PASS</u>
				M67	3	2360	2382	0	<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: RMA Armament
OBL ID#: 19094
Test Date: 4/6/2018
Purchase Order:

TEST SAMPLE

Serial No.: N/A
Model No.: N/A
Lot No.: N/A
Plies: N/A
Description: Flat Polyethylene Panel

Size: 28 x 42
Weight (lb.): 33
Thickness: 0.943 0.948 0.948 0.950
Avg. Thk. (in): 0.947

RANGE SET-UP

Range to Target: 50 ft. Range #: 2
Screen Dist. Vel. 1 (ft.): 5 Temperature: 72.3 °F
Screen Dist. Vel. 2 (ft.): 5 Bar. Pressure: 29.80 in. Hg
Screen 4 to target (ft): N/A Rel. Humidity: 57.2 %
Primary Vel. Location: 8.25 ft. from target Sample Temp: Amb. °F
Striking Velocity: No Recorder: Grant Zitek
Target to Witness: 6 in. Gunner: Jesse Crisanti
Witness Panel: 0.020" 2024-T3 Alum.
Backing Material: N/A
Obliquity: 0 Degrees
Barrel: .308/1:9/24"

Pre Test:
Clay Drops (mm):
Drop Avg (mm):
Clay Temp °F:
Clay Box #:
Post Test:
Clay Drops (mm):
Drop Avg (mm):
Clay Temp °F:

AMMUNITION

Projectile: 7.62x51mm 147gr. M80 Ball Copper Jacket Powder: N133

STANDARDS / PROCEDURES

NIJ-STD-0108.01 Required Velocity: 2750 fps ± 50 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	148.0	39.8	1808	1809	2765	2764	2765	P	0°		
2	148.1	39.8	1802	1803	2775	2773	2774	P	0°		
3	147.8	39.8	1793	1795	2789	2786	2788	UH	0°		Too Close To Previous shot.
4	148.3	39.8	1808	1806	2765	2769	2767	P	0°		
5	148.4	39.8	1798	1799	2781	2779	2780	P	0°		
6	1470.0	39.8	1792	1792	2790	2790	2790	P	0°		

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

TEST RESULTS:
Test sample satisfied the ballistic requirements given.

FOOTNOTES:



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TEST SAMPLE

Serial No.: N/A
Model No.: N/A
Lot No.: N/A
Plies: N/A
Description: Flat Polyethylene Panel

Size: 28 x 42
Weight (lb.): 33
Thickness: 0.943 0.948 0.948 0.950
Avg. Thk. (in): 0.947

RANGE SET-UP

Range to Target: 50 ft. Range #: 2 Pre Test:
Screen Dist. Vel. 1 (ft.): 5 Temperature: 72.3 °F Clay Drops (mm):
Screen Dist. Vel. 2 (ft.): 5 Bar. Pressure: 29.80 in. Hg Drop Avg (mm):
Screen 4 to target (ft): N/A Rel. Humidity: 57.2 % Clay Temp °F:
Primary Vel. Location: 8.25 ft. from target Sample Temp: Amb. °F Clay Box #:
Striking Velocity: No Recorder: Grant Zitek Post Test:
Target to Witness: 6 in. Gunner: Jesse Crisanti Clay Drops (mm):
Witness Panel: 0.020" 2024-T3 Alum. Drop Avg (mm):
Backing Material: N/A Clay Temp °F:
Obliquity: 0 Degrees
Barrel: 5.56mm NATO/1:7/30"

AMMUNITION

Projectile: 5.56mm M193 Ball Powder: IMR 4227

STANDARDS / PROCEDURES

NIJ-STD-0108.01 Required Velocity: 3150 fps ± 50 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	54.7	19.9	1611	1611	3104	3104	3104	P	0°		
2	54.8	20.0	1616	1615	3094	3096	3095	P	0°		Insufficient Velocity
3	54.7	20.3	1573	1577	3179	3171	3175	P	0°		
4	54.9	20.2						P	0°		No Velocity Reading.
5	54.7	20.3	1586	1588	3153	3149	3151	P	0°		

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TEST RESULTS:

Test sample satisfied the ballistic requirements given.

FOOTNOTES:



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BALLISTIC RESISTANCE TEST - V₀

Customer: RMA Armament
 OBL ID#: 19094
 Test Date: 4/6/2018
 Purchase Order:

TEST SAMPLE					
Serial No.:	N/A	Size:	28 x 42		
Model No.:	N/A	Weight (lb.):	33		
Lot No.:	N/A	Thickness:	0.943	0.948	0.950
Plies:	N/A	Avg. Thk. (in):	0.947		
Description:	Flat Polyethylene Panel				

RANGE SET-UP					
Range to Target:	50 ft.	Range #:	2	Pre Test:	
Screen Dist. Vel. 1 (ft.):	5	Temperature:	72.3 °F	Clay Drops (mm):	
Screen Dist. Vel. 2 (ft.):	5	Bar. Pressure:	29.80 in. Hg	Drop Avg (mm):	
Screen 4 to target (ft):	N/A	Rel. Humidity:	57.2 %	Clay Temp °F:	
Primary Vel. Location:	8.25 ft. from target	Sample Temp.	Amb. °F	Clay Box #:	
Striking Velocity:	No	Recorder:	Grant Zitek	Post Test:	
Target to Witness:	6 in.	Gunner:	Jesse Crisanti	Clay Drops (mm):	
Witness Panel:	0.020" 2024-T3 Alum.			Drop Avg (mm):	
Backing Material:	N/A			Clay Temp °F:	
Obliquity:	0 Degrees				
Barrel:	7.62x39mm/1:9.45/24"				

AMMUNITION	
Projectile:	7.62x39mm M67 Lead Core
Powder:	IMR 4227

STANDARDS / PROCEDURES	
NIJ-STD-0108.01 (mod)	Required Velocity: 2380 fps ± 50 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	123.7	23.7	2107	2107	2373	2373	2373	P	0°		
2	122.7	23.7	2119	2119	2360	2360	2360	P	0°		
3	123.8	23.8	2099	2099	2382	2382	2382	P	0°		

REMARKS:
 P=Partial Penetration
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 UH=Unfair Hit

TEST RESULTS:
 Test sample satisfied the ballistic requirements given.

FOOTNOTES: