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ISO/IEC 17025:2017 Accredited Laboratory
NLVAP Code: 200826-0

January 12, 2021

MITgel
4319 67th Ave Ct W
University Place WA
98466
ATTN: Timothy Moore

Mr. Moore,

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

The sample was tested in accordance with NIJ-STD-0101.06 Level IIIA (abbreviated) (modified) 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 (lbs.)	Projectile	Shots	Velocity (fps)		Penetrations	BFD (mm)		Pass/Fail
					Min.	Max.		Min.	Max.	
27030	N/A	2.22	.357 SIG FMJ	6	1461	1481	0	23.09	28.60	<u>PASS</u>
27031	N/A	4.88	.357 SIG FMJ	6	1472	1485	0	16.99	8.53	<u>PASS</u>

*Data shown in the table represents fair impacts only.

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

Darius Nuttbrock
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Oregon Ballistic Laboratories
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BALLISTIC RESISTANCE TEST - V₀

Customer:	MIT Gel
OBL ID#:	27030
Date Rcv'd:	1/11/2021
Test Date:	1/11/2021
Purchase Order:	

TEST SAMPLE	
Sample No.:	N/A
Model No.:	N/A
Lot No.:	N/A
Plies:	N/A
Description:	Level IIIA Soft Armor Panel/w no Gel
Size (in.):	16.5 x 22
Weight (lb.):	2.22
Thickness:	
Avg. Thk. (in):	

RANGE SET-UP									
Range to Target:	15 ft.	Range #:	3	Pre Test:					
Screen Dist. Vel. 1 (ft.):	5	Temperature:	73.3 °F	Clay Drops (mm):	18.20	18.39	18.65	18.10	19.64
Screen Dist. Vel. 2 (ft.):	5	Bar. Pressure:	29.98 in. Hg	Drop Avg (mm):	18.60				
Screen 4 to target (ft):	N/A	Rel. Humidity:	41.4 %	Clay Temp °F:	94.8				
Primary Vel. Location:	8.25 ft. from target	Sample Temp.	Amb. °F	Clay Box #:	12				
Striking Velocity:	No	Recorder:	Aubrey Rogers	Post Test:					
Target to Witness:	N/A	Gunner:	Jesse Crisanti	Clay Drops (mm):	17.06	17.07	17.57	16.08	17.28
Witness Panel:	N/A			Drop Avg (mm):	17.01				
Backing Material:	5.5" clay block w/ 3/4" plywood backing			Clay Temp °F:	94.0				
Obliquity:	0 Degrees								
Barrel:	.357 Sig/1:16/10"								

AMMUNITION	
Projectile:	.357 SIG 125gr. FMJ Lot #4362
Powder:	Accurate No. 2

STANDARDS / PROCEDURES	
NIJ-STD-0101.06 Level IIIA (abbrev) (mod)	Required Velocity: 1470 fps ± 30 fps

SHOT NO.	PROJECTILE WT. (gr.)	POWDER WT. (gr.)	TIME 1 μ s (10 ⁻⁶)	TIME 2 μ s (10 ⁻⁶)	VELOCITY 1 ft/s	VELOCITY 2 ft/s	AVERAGE VELOCITY	PENET. P/C	OBLIQUITY	CALIPER BFD	NOTES
1	124.9	6.8	3404	3403	1469	1469	1469	P	0°	23.09	
2	124.8	6.8	3396	3395	1472	1473	1473	P	0°	28.60	
3	124.4	6.8	3405	3395	1468	1473	1471	P	0°	27.45	
4	124.8	6.8	3377	3375	1481	1481	1481	P	30°		
5	125.0	6.8	3379	3379	1480	1480	1480	P	45°		
6	125.5	6.8	3428	3417	1459	1463	1461	P	0°		

REMARKS:
P=Partial Penetration
C=Complete Penetration
UH=Unfair Hit
Shots 1-3 were moved in to account for smaller gel backer.

TEST RESULTS:
Test sample satisfied the ballistic requirements given.
FOOTNOTES:
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.



BALLISTIC RESISTANCE TEST - V₀

Customer: MIT Gel
 OBL ID#: 27031
 Date Rcv'd: 1/11/2021
 Test Date: 1/11/2021
 Purchase Order:

TEST SAMPLE
 Sample No.: N/A Size (in.): 16.5 x 22
 Model No.: N/A Weight (lb.): 4.88
 Lot No.: N/A Thickness:
 Plies: N/A Avg. Thk. (in):
 Description: Level IIIA Soft Armor Panel/w Gel

RANGE SET-UP
 Range to Target: 15 ft. Range #: 3 Pre Test:
 Screen Dist. Vel. 1 (ft.): 5 Temperature: 73.3 °F Clay Drops (mm): 18.20 18.39 18.65 18.10 19.64
 Screen Dist. Vel. 2 (ft.): 5 Bar. Pressure: 29.98 in. Hg Drop Avg (mm): 18.60
 Screen 4 to target (ft): N/A Rel. Humidity: 41.4 % Clay Temp °F: 94.8
 Primary Vel. Location: 8.25 ft. from target Sample Temp. Amb. °F Clay Box #: 12
 Striking Velocity: No Recorder: Aubrey Rogers Post Test:
 Target to Witness: N/A Gunner: Jesse Crisanti Clay Drops (mm): 17.06 17.07 17.57 16.08 17.28
 Witness Panel: N/A Backing Material: 5.5" clay block w/ 3/4" plywood backing Drop Avg (mm): 17.01
 Backing Material: 5.5" clay block w/ 3/4" plywood backing Clay Temp °F: 94.0
 Obliquity: 0 Degrees
 Barrel: .357 Sig/1:16/10"

AMMUNITION
 Projectile: .357 SIG 125gr. FMJ Lot #4362 Powder: Accurate No. 2

STANDARDS / PROCEDURES
 NIJ-STD-0101.06 Level IIIA (abbrev) (mod) Required Velocity: 1470 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	125.5	6.8	3386	3375	1477	1481	1479	P	0°	11.11	
2	124.6	6.8	3378	3367	1480	1485	1483	P	0°	16.99	
3	124.7	6.8	3374	3363	1482	1487	1485	P	0°	14.37	
4	124.4	6.8	3402	3391	1470	1474	1472	P	30°		
5	124.4	6.8	3378	3377	1480	1481	1481	P	45°		
6	124.9	6.8	3385	3384	1477	1478	1478	P	0°	8.53	

REMARKS:
 P=Partial Penetration
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 Shots 1-3 were moved in to account for smaller gel backer.

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

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