

**NATIONAL INSTITUTE OF JUSTICE
COMPLIANCE TEST REPORT**

NIJ Standard 0101.04
September 2000

COMPLIANCE TESTING INFORMATION

FACILITY DESCRIPTION:

Test Laboratory: United States Test Laboratory, LLC
Test Start Date: 06/07/06

Report Number: 06N074
Report Date: 06/07/06

TESTING CERTIFICATION:

Laboratory Representative: Richard W. Mouser
Name

Witnessed by: _____
Name

Representing

ARMOR DESCRIPTION:

Manufacturer: Armor Shield, LLC
Date Rec'd: 05/17/06

*Ballistic Material Choices

<i>Aramid</i>	<i>PBO</i>	<i>Ceramic</i>	<i>Metal</i>
<i>Polyethylene</i>	<i>Hybrid</i>	<i>Composite</i>	<i>Other</i>

Model: See Remarks

Style: N/A

NIJ Armor Type: 4

Enter as: 1, 2A, 2, 3A, 3, 4, or Special

*Ballistic Material: Hybrid

Male/Female: Male

NIJ STD-0101.03 Compliant: No

SAMPLE DESCRIPTION:

	Penetration-Backface Signature (P-BFS)																Baseline Ballistic Limit					
	Sample 1		Sample 2		Sample 3		Sample 4		Sample 5		Sample 6		Sample 7		Sample 8		Sample 9		Sample 10			
	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back		
Size:	See Remarks	See Remarks							See Remarks	See Remarks	See Remarks	See Remarks	See Remarks	See Remarks	See Remarks	See Remarks						
Panel Serial Number:	*0001	*0001							*0005	*0002	*0002	*0004	*0004	*0003	*0003	*0003						
Plate Serial Number:	*0002	*0001							*0009	*0004	*0003	*0007	*0008	*0006	*0005							
Lot Number:	See Remarks	See Remarks							See Remarks	See Remarks	See Remarks	See Remarks	See Remarks	See Remarks	See Remarks							
Gross Weight (lb.):	10.14	10.17							10.13	10.18	10.26	10.03	10.16	10.07	10.15							

TEST DESCRIPTION:

	Penetration-Backface Signature (P-BFS)																Baseline Ballistic Limit				
	Sample 1		Sample 2		Sample 3		Sample 4		Sample 5		Sample 6		Sample 7		Sample 8		Sample 9		Sample 10		
	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back	
Test Condition:	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
Threat Ammunition:	.30 Caliber	.30 Caliber	.30 Caliber	.30 Caliber	.30 Caliber	.30 Caliber	.30 Caliber	.30 Caliber	.30 Caliber	.30 Caliber	.30 Caliber	.30 Caliber	.30 Caliber	.30 Caliber	.30 Caliber	.30 Caliber	.30 Caliber	.30 Caliber	.30 Caliber	.30 Caliber	.30 Caliber
Bullet (grain/type):	166/AP	166/AP	166/AP	166/AP					166/M2 AP	166/M2 AP	166/M2 AP	166/M2 AP	166/M2 AP	166/M2 AP	166/M2 AP	166/M2 AP	166/M2 AP	166/M2 AP	166/M2 AP	166/M2 AP	166/M2 AP
NIJ Reference Velocity (ft/s):	2880	2880							2880	2880	2880	2880	2880	2880	2880	2880	2880	2880	2880	2880	2880
Provided BL Lower Velocity (ft/s):																					
Bullet Manufacturer:	Rem.	Rem.	Rem.	Rem.	Rem.	Rem.	Rem.	Rem.	Rem.	Rem.	Rem.	Rem.	Rem.	Rem.	Rem.	Rem.	Rem.	Rem.	Rem.	Rem.	Rem.
Bullet Lot Number:	23558	23558	23558	23558	22847	22847	22847	22847	23558	23558	23558	23558	23558	23558	23558	23558	23558	23558	23558	23558	23558
Test Barrel Manufacturer:	H.S	H.S	H.S	H.S	H.S	H.S	H.S	H.S	H.S	H.S	H.S	H.S	H.S	H.S	H.S	H.S	H.S	H.S	H.S	H.S	H.S
Test Barrel Length (in):	24.0	24.0	24.0	24.0	0.0	0.0	0.0	0.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0

ARMOR CONSTRUCTION:

	Front Panel	Rear Panel
Front Closure (Y/N):	N	N
Removable Carrier (Y/N):	Y	Y
Number of Layers:	1+29	1+29
Description of Stitching:	Layers 1-24: 3" horizontal bar tack at top center and bottom center.	Layers 1-24: 3" horizontal bar tack at top center and bottom center.
Individual Layer Description:	Plate: Layer 1: Ceramic (0.52" thick). Panel: Layers 1-24: Flex woven aramid film. Layers 25-28: Plastic (0.14" thick). Layer 29: Foam (0.157" thick).	Plate: Layer 1: Ceramic (0.52" thick). Panel: Layers 1-24: Flex woven aramid film. Layers 25-28: Plastic (0.14" thick). Layer 29: Foam (0.157" thick).

REMARKS:

Model #: 1012-GR-4 in conjunction with AS-VGT3-3A.
 *Plate SN#: 1006060002/0001; Plate Size: 10"x 12"; Lot# 100606.
 Panel SN#: 1006060001; Panel Size: LARGE; Lot# 4444.

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HANDLOAD VERIFICATION WORKSHEET

Report Number: 06N074
Report Date: 06/07/06
NIJ Armor Type: 4

TEST CONDITIONS:
Ambient Temp: 74 F
Rel. Humidity: 44 %

TEST DIMENSIONS:
Range Length: 50.00 ft.
Velocity 1: 5.73 ft.
Velocity 2: 4.09 ft.

Ammunition: .30 Caliber 166/AP
Test Date: 06/07/06

Ammunition: _____
Test Date: _____

Test Round 1							Test Round 2						
Shot No.	Charge (grain)	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Shot No.	Charge (grain)	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)
1	60.9	1988	2881	1415	2887	2884	1			0		0	
2	60.8	1978	2896	1407	2903	2900	2			0		0	
3	60.9	1976	2899	1405	2907	2903	3			0		0	
4	61.0	1981	2891	1412	2893	2892	4			0		0	
5	61.0	1999	2865	1428	2861	2863	5			0		0	
6	61.0	1984	2887	1415	2887	2887	6			0		0	
7	61.0	1998	2867	1422	2873	2870	7			0		0	
8	60.8	2007	2854	1430	2857	2855	8			0		0	
9	60.7	2003	2860	1426	2865	2862	9			0		0	
10	60.7	2011	2848	1432	2853	2850	10			0		0	

Mean: 60.9

Mean: 2877

Mean:

Mean:

Test Round 1	
NIJ Reference Velocity:	2880 ft/s
Handload (NIJ Reference ± 10 ft/s):	2877 ft/s
Range (NIJ Reference ± 30 ft/s):	2850 2910 ft/s

Test Round 2	
NIJ Reference Velocity:	ft/s
Handload (NIJ Reference ± 10 ft/s):	#VALUE! ft/s
Range (NIJ Reference ± 30 ft/s):	#VALUE! #VALUE! ft/s

Min	Max
2850	2903

Velocity Summary: _____ ft/s

Min	Max
0	0

Velocity Summary: _____ ft/s

NOTE:

Velocity input for time factor requires microsecond (10⁻⁶) format.

Conduct handload verification test for each new compliance test series.

Use 3-shot series (Sec. 5.11.1) to check handload viability within each compliance series when there are significant breaks during testing.

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Daily Wet Conditioning Spray Calibration

Manufacturer: Armor Shield, LLC
Model: See Remarks

Report Number: 06N074
Report Date: 06/07/06

Calibration Date:

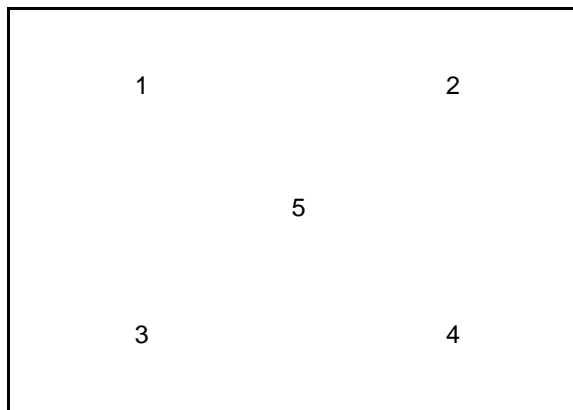
06/07/06					
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Gauge Location	Interval (min)						
	15	15	15	15	15	15	
1	1.0						inches
2	0.7						inches
3	0.5						inches
4	1.2						inches
5	1.1						inches

Average: 0.9 inches
Requirement: 1.0 1.0 1.0 1.0 1.0 1.0 inches
Pass: Y N N N N N

Required Flow Rate: 4.0 +/- 0.8 in/hr 1.0 +/- 0.2 in/0.25 hr
Conditioning Surface Dimensions: 30.0 x 30.0 inches square

Gauge Locations



Top View

Spray Conditioning

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Drop Test Results

Sample/Panel: Sample 1 Front
 Manufacturer: Armor Shield, LLC
 Model: See Remarks

Test Date: 06/07/06
 Range Conditions:
 Temperature: 74 F
 RH: 44 %

Report Number: 06N074
 Report Date: 06/07/06

Pre-Test Drop Calibration:

Block ID: 1
 Time of Day: 0948 hrs
 Clay Temperature: 85 deg. F

Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
18	19	19	19	17	18
Requirement:					19 ± 2 mm
Pass:					Y

Post-Test Drop Calibration:

Block ID: 1
 Time of Day: hrs
 Clay Temperature: deg. F

Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
Requirement:					19 ± 2 mm
Pass:					N

Sample/Panel: Sample 1 Back

Test Date: 06/07/06
 Range Conditions:
 Temperature: 74 F
 RH: 44 %

Report Number: 06N074
 Report Date: 06/07/06

Pre-Test Drop Calibration:

Block ID: 1
 Time of Day: 1100 hrs
 Clay Temperature: 84 deg. F

Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
19	19	18	18	16	18
Requirement:					19 ± 2 mm
Pass:					Y

Post-Test Drop Calibration:

Block ID: 1
 Time of Day: 1120 hrs
 Clay Temperature: 82 deg. F

Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
18	18	17	18	17	18
Requirement:					19 ± 2 mm
Pass:					Y

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Sample/Panel: Sample 2 Front
 Manufacturer: Armor Shield, LLC
 Model: See Remarks

Test Date:
 Range Conditions:
 Temperature: F
 RH: %

Report Number: 06N074
 Report Date: 06/07/06

Pre-Test Drop Calibration:

Block ID:
 Time of Day: hrs
 Clay Temperature: deg. F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
						Requirement: 19 ± 2 mm
						Pass: N

Post-Test Drop Calibration:

Block ID: 0
 Time of Day: hrs
 Clay Temperature: deg. F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
						Requirement: 19 ± 2 mm
						Pass: N

Sample/Panel: Sample 2 Back

Test Date: 01/00/00
 Range Conditions:
 Temperature: 0 F
 RH: 0 %

Report Number: 06N074
 Report Date: 06/07/06

Pre-Test Drop Calibration:

Block ID:
 Time of Day: hrs
 Clay Temperature: deg. F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
						Requirement: 19 ± 2 mm
						Pass: N

Post-Test Drop Calibration:

Block ID: 0
 Time of Day: hrs
 Clay Temperature: deg. F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
						Requirement: 19 ± 2 mm
						Pass: N

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Drop Test Results

Sample/Panel: Sample 3 Front
 Manufacturer: Armor Shield, LLC
 Model: See Remarks

Test Date:
 Range Conditions:
 Temperature: F
 RH: %

Report Number: 06N074
 Report Date: 06/07/06

Pre-Test Drop Calibration:

Block ID:
 Time of Day: hrs
 Clay Temperature: deg. F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
Requirement:						19 ± 2 mm
Pass:						N

Post-Test Drop Calibration:

Block ID: 0
 Time of Day: hrs
 Clay Temperature: deg. F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
Requirement:						19 ± 2 mm
Pass:						N

Sample/Panel: Sample 3 Back

Test Date: 01/00/00
 Range Conditions:
 Temperature: 0 F
 RH: 0 %

Report Number: 06N074
 Report Date: 06/07/06

Pre-Test Drop Calibration:

Block ID:
 Time of Day: hrs
 Clay Temperature: deg. F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
Requirement:						19 ± 2 mm
Pass:						N

Post-Test Drop Calibration:

Block ID: 0
 Time of Day: hrs
 Clay Temperature: deg. F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
Requirement:						19 ± 2 mm
Pass:						N

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Drop Test Results

Sample/Panel: Sample 4 Front
 Manufacturer: Armor Shield, LLC
 Model: See Remarks

Test Date:
 Range Conditions:
 Temperature: F
 RH: %

Report Number: 06N074
 Report Date: 06/07/06

Pre-Test Drop Calibration:

Block ID:
 Time of Day: hrs
 Clay Temperature: deg. F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
						Requirement: 19 ± 2 mm
						Pass: N

Post-Test Drop Calibration:

Block ID: 0
 Time of Day: hrs
 Clay Temperature: deg. F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
						Requirement: 19 ± 2 mm
						Pass: N

Sample/Panel: Sample 4 Back

Test Date: 01/00/00
 Range Conditions:
 Temperature: 0 F
 RH: 0 %

Report Number: 06N074
 Report Date: 06/07/06

Pre-Test Drop Calibration:

Block ID:
 Time of Day: hrs
 Clay Temperature: deg. F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
						Requirement: 19 ± 2 mm
						Pass: N

Post-Test Drop Calibration:

Block ID: 0
 Time of Day: hrs
 Clay Temperature: deg. F

Depth of Indent:	Drop 1	Drop 2	Drop 3	Drop 4	Drop 5	Avg.
						Requirement: 19 ± 2 mm
						Pass: N

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Penetration and BFS Firing Data - Sample 1

Sample No: Sample 1
 Manufacturer: Armor Shield, LLC
 Model: See Remarks

Ammunition: .30 Caliber 166/AP
 Conditioning: Wet
 Test Date: 06/07/06

Report Number: 06N074
 Report Date: 06/07/06
 NIJ Armor Type: 4

Panel Serial No: *0001
 Plate Serial No: *0002

Panel Serial No: *0001
 Plate Serial No: *0001

FRONT PANEL											BACK PANEL											COMPLIANCE		
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	30° (Y)	Fair (Y/N)	Penetrate (Y/N)	Note	BFS (mm)	Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	30° (Y)	Fair (Y/N)	Penetrate (Y/N)	Note	BFS (mm)	Front Panel	Back Panel	
1	2008	2853	1430	2857	2855		Y	N		33	1	1998	2867	1424	2869	2868		Y	N			32	Y	Y
2		0		0			Y	N			2		0		0			Y	N				Y	Y
3		0		0			Y	N			3		0		0			Y	N				Y	Y
4		0		0		Y	Y	N			4		0		0		Y	Y	N				Y	Y
5		0		0		Y	Y	N			5		0		0		Y	Y	N				Y	Y
6		0		0			Y	N			6		0		0			Y	N				Y	Y
7		0		0							7		0		0									
8		0		0							8		0		0									

Velocity input for time factor requires microsecond (10⁻⁶) format.

Firing Sequence Start: 1043 hrs
 Firing Sequence End: 1053 hrs
 Duration: 10 min

Firing Sequence Start: 1104 hrs
 Firing Sequence End: 1118 hrs
 Duration: 14 min

TEST CONDITIONS:

Ambient Temp: 74 F
 Rel. Humidity: 44 %

TEST DIMENSIONS:

Range Length: 50.00 ft.
 Velocity 1: 5.73 ft.
 Velocity 2: 4.09 ft.

VELOCITY SUMMARY:

	Min	Max	
Front Panel 0°	2855	2855	ft/s
Front Panel 30°	0	0	ft/s
Back Panel 0°	2868	2868	ft/s
Back Panel 30°	0	0	ft/s

Handload Verification Velocity: 2877 ft/s
 NIJ Reference Velocity: 2880 ft/s
 Velocity Range: 2850 - 2910 ft/s

NOTE:

- a - Excessive velocity
- b - Insufficient velocity
- c - Too close to edge
- d - Too close to prior impact
- e - Excessive total impacts (test terminated)
- f - Excessive area impacts (test terminated)
- g - Impact on seam

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Penetration and BFS Firing Data - Sample 2

Sample No: Sample 2
 Manufacturer: Armor Shield, LLC
 Model: See Remarks

Ammunition: .30 Caliber 166/AP
 Conditioning: Wet
 Test Date: 01/00/00

Report Number: 06N074
 Report Date: 06/07/06
 NIJ Armor Type: 4

Panel Serial No: 0
 Plate Serial No: 0

Panel Serial No: 0
 Plate Serial No: 0

FRONT PANEL											BACK PANEL											COMPLIANCE	
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	30° (Y)	Fair (Y/N)	Penetrate (Y/N)	Note	BFS (mm)	Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	30° (Y)	Fair (Y/N)	Penetrate (Y/N)	Note	BFS (mm)	Front Panel	Back Panel
1		0		0			Y	N			1		0		0			Y	N			Y	Y
2		0		0			Y	N			2		0		0			Y	N			Y	Y
3		0		0			Y	N			3		0		0			Y	N			Y	Y
4		0		0		Y	Y	N			4		0		0		Y	Y	N			Y	Y
5		0		0		Y	Y	N			5		0		0		Y	Y	N			Y	Y
6		0		0			Y	N			6		0		0			Y	N			Y	Y
7		0		0							7		0		0								
8		0		0							8		0		0								

Velocity input for time factor requires microsecond (10⁻⁶) format.

Firing Sequence Start: _____ hrs
 Firing Sequence End: _____ hrs
 Duration: _____ min

Firing Sequence Start: _____ hrs
 Firing Sequence End: _____ hrs
 Duration: _____ min

TEST CONDITIONS:

Ambient Temp: 74 F
 Rel. Humidity: 44 %

TEST DIMENSIONS:

Range Length: 50.00 ft.
 Velocity 1: 5.73 ft.
 Velocity 2: 4.09 ft.

VELOCITY SUMMARY:

	Min	Max	
Front Panel 0°	0	0	ft/s
Front Panel 30°	0	0	ft/s
Back Panel 0°	0	0	ft/s
Back Panel 30°	0	0	ft/s

Handload Verification Velocity: 2877 ft/s
 NIJ Reference Velocity: 2880 ft/s
 Velocity Range: 2850 2910 ft/s

NOTE:

- a - Excessive velocity
- b - Insufficient velocity
- c - Too close to edge
- d - Too close to prior impact
- e - Excessive total impacts (test terminated)
- f - Excessive area impacts (test terminated)
- g - Impact on seam

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Penetration and BFS Firing Data - Sample 3

Sample No: Sample 3
 Manufacturer: Armor Shield, LLC
 Model: See Remarks

Ammunition: _____
 Conditioning: Wet
 Test Date: 01/00/00

Report Number: 06N074
 Report Date: 06/07/06
 NIJ Armor Type: 4

Panel Serial No: 0
 Plate Serial No: 0

Panel Serial No: 0
 Plate Serial No: 0

FRONT PANEL											BACK PANEL											COMPLIANCE	
Shot No.	Time 1 (µs)	Vel. 1 (ft/s)	Time 2 (µs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	30° (Y)	Fair (Y/N)	Penetrate (Y/N)	Note	BFS (mm)	Shot No.	Time 1 (µs)	Vel. 1 (ft/s)	Time 2 (µs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	30° (Y)	Fair (Y/N)	Penetrate (Y/N)	Note	BFS (mm)	Front Panel	Back Panel
1		0		0			Y	N			1		0		0			Y	N			Y	Y
2		0		0			Y	N			2		0		0			Y	N			Y	Y
3		0		0			Y	N			3		0		0			Y	N			Y	Y
4		0		0		Y	Y	N			4		0		0		Y	Y	N			Y	Y
5		0		0		Y	Y	N			5		0		0		Y	Y	N			Y	Y
6		0		0			Y	N			6		0		0			Y	N			Y	Y
7		0		0							7		0		0								
8		0		0							8		0		0								

Velocity input for time factor requires microsecond (10⁻⁶) format.

Firing Sequence Start: _____ hrs
 Firing Sequence End: _____ hrs
 Duration: _____ min

Firing Sequence Start: _____ hrs
 Firing Sequence End: _____ hrs
 Duration: _____ min

TEST CONDITIONS:

Ambient Temp: 0 F
 Rel. Humidity: 0 %

TEST DIMENSIONS:

Range Length: 50.00 ft.
 Velocity 1: 5.73 ft.
 Velocity 2: 4.09 ft.

VELOCITY SUMMARY:

	Min	Max	
Front Panel 0°:	0	0	ft/s
Front Panel 30°:	0	0	ft/s
Back Panel 0°:	0	0	ft/s
Back Panel 30°:	0	0	ft/s

Handload Verification Velocity: _____ ft/s
 NIJ Reference Velocity: _____ ft/s
 Velocity Range: _____ ft/s

NOTE:

- a - Excessive velocity
- b - Insufficient velocity
- c - Too close to edge
- d - Too close to prior impact
- e - Excessive total impacts (test terminated)
- f - Excessive area impacts (test terminated)
- g - Impact on seam

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Penetration and BFS Firing Data - Sample 4

Sample No: Sample 4
 Manufacturer: Armor Shield, LLC
 Model: See Remarks

Ammunition: _____
 Conditioning: Wet
 Test Date: 01/00/00

Report Number: 06N074
 Report Date: 06/07/06
 NIJ Armor Type: 4

Panel Serial No: 0
 Plate Serial No: 0

Panel Serial No: 0
 Plate Serial No: 0

FRONT PANEL											BACK PANEL											COMPLIANCE	
Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	30° (Y)	Fair (Y/N)	Penetrate (Y/N)	Note	BFS (mm)	Shot No.	Time 1 (μs)	Vel. 1 (ft/s)	Time 2 (μs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	30° (Y)	Fair (Y/N)	Penetrate (Y/N)	Note	BFS (mm)	Front Panel	Back Panel
1		0		0			Y	N			1		0		0			Y	N			Y	Y
2		0		0			Y	N			2		0		0			Y	N			Y	Y
3		0		0			Y	N			3		0		0			Y	N			Y	Y
4		0		0		Y	Y	N			4		0		0		Y	Y	N			Y	Y
5		0		0		Y	Y	N			5		0		0		Y	Y	N			Y	Y
6		0		0			Y	N			6		0		0			Y	N			Y	Y
7		0		0							7		0		0								
8		0		0							8		0		0								

Velocity input for time factor requires microsecond (10⁻⁶) format.

Firing Sequence Start: _____ hrs
 Firing Sequence End: _____ hrs
 Duration: _____ min

Firing Sequence Start: _____ hrs
 Firing Sequence End: _____ hrs
 Duration: _____ min

TEST CONDITIONS:

Ambient Temp: 0 F
 Rel. Humidity: 0 %

TEST DIMENSIONS:

Range Length: 50.00 ft.
 Velocity 1: 5.73 ft.
 Velocity 2: 4.09 ft.

VELOCITY SUMMARY:

	Min	Max	
Front Panel 0°:	0	0	ft/s
Front Panel 30°:	0	0	ft/s
Back Panel 0°:	0	0	ft/s
Back Panel 30°:	0	0	ft/s

Handload Verification Velocity: _____ ft/s
 NIJ Reference Velocity: _____ ft/s
 Velocity Range: _____ ft/s

NOTE:

- a - Excessive velocity
- b - Insufficient velocity
- c - Too close to edge
- d - Too close to prior impact
- e - Excessive total impacts (test terminated)
- f - Excessive area impacts (test terminated)
- g - Impact on seam

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

NIJ Standard 0101.04
September 2000

Ballistic Limit Firing Data

Manufacturer: Armor Shield, LLC
Model: See Remarks
Test Date: 06/07/06

Ammunition: .30 Caliber 166/M2 AP
Conditioning: Dry

Report Number: 06N074
Report Date: 06/07/06
NIJ Armor Type: 4

Enter NIJ Armor Types III and IV Sample Number(s) in Remarks Column as Applicable

BL PANEL 1										BL PANEL 2																
Shot No.	Time 1 (µs)	Vel. 1 (ft/s)	Time 2 (µs)	Vel. 2 (ft/s)	Vel. Avg. (ft/s)	Penetration		Remarks	Used (Y/N)	Shot No.	Time 1 (µs)	Velocity (ft/s)	Time 1 (µs)	Velocity (ft/s)	Vel. Avg. (ft/s)	Penetration		Remarks	Used (Y/N)							
						C	P									C	P									
1	1905	3007	1356	3013	3010		x	#9	n	1		0		0												
2	1860	3080	1324	3085	3082		x	#10	n	2		0		0												
3	1808	3168	1286	3177	3172		x	#11	n	3		0		0												
4	1724	3323	1226	3332	3327		x	#12	n	4		0		0												
5	1664	3442	1185	3447	3445		x	#13	y	5		0		0												
6	1607	3564	1143	3574	3569	x		#14	n	6		0		0												
7	1621	3534	1154	3540	3537		x	#15	y	7		0		0												
8	1606	3567	1143	3574	3570	x		#9	n	8		0		0												
9	1611	3556	1147	3561	3559	x		#10	n	9		0		0												
10	1631	3512	1161	3519	3515	x		#11	y	10		0		0												
11	1656	3459	1178	3468	3463		x	#12	y	11		0		0												
12	1644	3484	1170	3491	3488	x		#13	y	12		0		0												
13	1668	3434	1187	3441	3438	x		#14	y	13		0		0												
14		0		0						14		0		0												
15		0		0						15		0		0												
Count:										13	6	7	6	Count:									0	0	0	0

INSTRUCTIONS:

1. Fill in shaded cells - all others are automatic calculations
2. Enter an "x" to designate complete or partial penetrations
3. Enter a "y" to designate use of the shot for calculation purposes - calculation group must include highest partial and lowest complete.
4. Velocity input for time factor requires microsecond (10-6) format.

TEST CONDITIONS:

Ambient Temp: 72 F
Rel. Humidity: 44 %

TEST DIMENSIONS:

Range Length: 50.00 ft.
Velocity 1: 5.73 ft.
Velocity 2: 4.09 ft.

Provided Lower Velocity: _____ ft/s

Calculated Lower Velocity: 3105 ft/s

Calculated Upper Velocity: 3255 ft/s

Calculated First Shot Velocity: 3180 ft/s

Velocity Results:

	Min	Max
Panel 1:	3010	3570
Panel 2:	0	0

Remarks: Enter Sample No. e.g., 5...10

- a - Too close to edge
- b - Too close to prior impact
- c - Impact on seam

CLAY BLOCK TEMPERATURE:

Pre-Test: 85 F
Post Test: 81 F

**NATIONAL INSTITUTE OF JUSTICE
COMPLIANCE TEST REPORT**

NIJ Standard 0101.04
September 2000

NIJ BASELINE BALLISTIC LIMIT CALCULATION

Manufacturer: Armor Shield, LLC
Model: See Remarks
Test Date: 06/07/06

Ammunition: .30 Caliber 166/M2 AP
Conditioning: Dry

Report Number: 06N074
Report Date: 06/07/06
NIJ Armor Type: 4

BL PANEL 1				BL PANEL 2			
Shot No.	Velocity (ft/s)	Penetration		Shot No.	Velocity (ft/s)	Penetration	
		Complete	Partial			Complete	Partial
5	3445		x				
7	3537		x				
10	3515	x					
11	3463		x				
12	3488	x					
13	3438	x					
Count:	6	3	3	Count:	0	0	0

BALLISTIC LIMIT SUMMARY		
Panel 1 BL:	3481	ft/s
Velocity Range:	99	ft/s
Standard Deviation (σ):	40	ft/s
Panel 2 BL:		ft/s
Velocity Range:	0	ft/s
Standard Deviation (σ):		ft/s
Difference Panel 1 to 2:	#VALUE!	ft/s
Panel 1 & 2 Average BL:		ft/s

PAGE WILL AUTOMATICALLY CALCULATE

NATIONAL INSTITUTE OF JUSTICE COMPLIANCE TEST REPORT

NIJ Standard 0101.04
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Summary of Results

Armor Manufacturer: Armor Shield, LLC **Armor Style:** N/A **Report Number:** 06N074
Armor Model No: See Remarks **NIJ Armor Type:** 4 **Report Date:** 06/07/06

PENETRATION AND BACKFACE SIGNATURE												
Test Samples (b)					Ballistic Threat					Results		
Item Number	Serial Number	Panel	Weight (lbs)	No. of Plies	Caliber	Obliquity (degrees)	Req'd Shots	Velocity (ft/s)		Penetration (Y/N)	BFS (mm)	
								Max.	Min.		BFS 1	BFS 2
Sample 1	*0001	Front	10.14	1+27	.30 Caliber	0 30	1 0	2855 0	2855 0	N	33	0
	*0001	Back	10.17	1+27	.30 Caliber	0 30	1 0	2868 0	2868 0	N	32	0
Sample 2										N	0	
										N	0	
Sample 3										N	0	
										N	0	
Sample 4										N	0	
										N	0	

NOTES:	
Maximum BFS:	44 mm
Ballistic Material:	Hybrid
Model Compliance: YES	

P-BFS Result	NIJ Baseline Ballistic Limit
Penetration: <u>Pass</u>	Panel 1: Type: <u>6</u> shots Ballistic Limit: <u>3481</u> ft/s Std Dev. (σ): <u>40</u> ft/s
BFS: <u>Pass</u>	
	Panel 2: Type: <u>0</u> shots Ballistic Limit: _____ ft/s Std Dev. (σ): _____ ft/s

CERTIFICATION:

Test Data Certification: Richard W. Mouser
 Name

 Signature

Witnessed by: 0 0
 Name Representing