

National Institute of Justice (NIJ)

Approved Test Laboratory
For Personal Body Armor

Expiration Date:

April 30, 2020

National Technical Systems

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NVLAP LAB CODE: 200818-0

Approved Signatory: Jake Crawford

HARD ARMOR STAND-ALONE PLATE:

P-BFS TEST

Date Received: 10/01/19
Received Via: USPS
Returned Via: UPS

Record No.: EXT19001-1
Test Date: 10/08/19
Customer: Extant Armor Co.

Test Conditions

Temperature: 69.7 °F
Humidity: 44 %
Clay Block No.: 13
Clay Block Size: 24" x 24" x 5.5"
Clay Temp.: 99.3 °F
Drop Average: 19.98 mm

Range 3

Muzzle to Screen 1: 39.30 ft.
Screen 1 - 4: 5.00 ft.
Screen 4 - Target: 5.70 ft.
Midpoint to Target: 8.20 ft.

Test Reference: OP0527710-1, Line 1
Test Standard: Modified / Abbreviated NIJ 0101.06, July 2008
Threat Level: IV
Condition: New / Dry

Test Barrel / Powder

Barrel Length: 26 in.
Test Barrel ID#: WC040885
Powder: IMR 4064

Sample Tested Description	Shot / Ammunition Description				Chronograph		Test Results	
	Shot No.	Shot Location	Degree Obliquity	Caliber	Bullet Weight (gr.) / Type	TIME sx-5	VELOCITY ft/s	Perforation BFS (mm)
Manufacturer: Extant Armor Co. Model No.: ALV Line 1 Sample No.: 1 of 2 Curve: Single Curve Cut: Shooter's Cut Type: Stand-Alone Plate Size: 10" x 12" Thickness (in.): 1.061 Weight (lbs.): 6.939	1	Crown	0°	.30 Cal. (.30-06)	166 / M2AP	174.4	2867	27.36

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Test Remarks/Notes:

•Stand-Alone Plate tested non-planar (with clay build-up/mound)

Test Requirements:

Submersion: NO, tested "Dry" IAW customer request
Drop Test: NO, Mechanical Durability not required IAW customer request
BFS: Shot No. 1 Only
PASS / FAIL: BFS ≤ 44.0mm; No Perforations

Test Round Description:

.30 Cal. (.30-06) 166 gr. (10.8g) AP (U.S Military M2AP)
Test Velocity: 2880 +/- 30 ft/s

Shot Spacing / Test Requirements:

•Shot Pattern: 1-Shot on Crown of Plate
•Shot-to-Edge: 2.0" Minimum
•Shot-to-Shot: 2.0" Minimum

Sample Description:

•Customer Proprietary

Shot Locations (described from the shooter's perspective):

Shot No. 1: Crown of Plate 4.25" from left "/" and right "\" edges; 3.50" from top edge

Project Manager: Zerger
Range Tech(s): Wilson Diefenderfer

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HARD ARMOR STAND-ALONE PLATE:

P-BFS TEST

Date Received: 10/01/19
Received Via: USPS
Returned Via: UPS

Record No.: EXT19001-2
Test Date: 10/08/19
Customer: Extant Armor Co.

Test Conditions

Temperature: 69.7 °F
Humidity: 44 %
Clay Block No.: 13
Clay Block Size: 24" x 24" x 5.5"
Clay Temp.: 99.3 °F
Drop Average: 19.98 mm

Range 3

Muzzle to Screen 1: 39.30 ft.
Screen 1 - 4: 5.00 ft.
Screen 4 - Target: 5.70 ft.
Midpoint to Target: 8.20 ft.

Test Reference: OP0527710-1, Line 2
Test Standard: Modified / Abbreviated NIJ 0101.06, July 2008
Threat Level: IV
Condition: New / Wet

Test Barrel / Powder

Barrel Length: 26 in.
Test Barrel ID#: WC040885
Powder: IMR 4064

Sample Tested Description		Shot / Ammunition Description				Chronograph		Test Results	
Manufacturer:	Extant Armor Co.	Shot No.	Shot Location	Degree Obliquity	Caliber	Bullet Weight (gr.) / Type	TIME sx-5	VELOCITY ft/s	Perforation BFS (mm)
Model No.:	ALV Line 2	1	Crown	0°	.30 Cal. (.30-06)	166 / M2AP	171.8	2910	27.87
Sample No.:	2 of 2								
Curve:	Single Curve								
Cut:	Shooter's Cut								
Type:	Stand-Alone Plate								
Size:	10" x 12"								
Thickness (in.):	1.059								
Weight (lbs.):	6.880								

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Test Remarks/Notes:

•Stand-Alone Plate tested non-planar (with clay build-up/mound)

Test Requirements:

Submersion: YES, IAW Section 7.8.2 Armor Submersion
Drop Test: YES, IAW Sections 6.2.3.3 & 6.3.4 (7)
BFS: Shot No. 1 Only
PASS / FAIL: BFS ≤ 44.0mm; No Perforations

Test Round Description:

.30 Cal. (.30-06) 166 gr. (10.8g) AP (U.S Military M2AP)
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