

# NATIONAL TECHNICAL SYSTEMS

## BALLISTIC RESISTANCE TEST

Date Received 04/03/18  
 Via: Hand Carry  
 Returned Via: Hand Carry

Record No.: PBS18001-1  
 Test Date: 04/03/18  
 Customer: Proactive Ballistic Systems, LLC

**Test Conditions**

Temperature 69 °F  
 Humidity: 39 %  
 Test Spec.: UL 752, 11th Edition: December 21, 2006  
 Test Type: Assemblies (IAW Section 15)  
 Test Reference: IAW Paragraphs 15.9 & 17.5.1  
 Threat Level: Level 7  
 Shots Required: 5

**Range 3**

Muzzle to Screen 1 3.89 ft.  
 Screen 1 - 2: 5.00 ft.  
 Screen 2 - Target 4.79 ft.  
 Midpoint to Target 7.29 ft.  
 Target to Witness: 1.50 ft.  
 Witness Sheet: 1/8" Corrugated Cardboard  
 Barrel Length: 26 in.

Sample Tested Description	Shot / Ammunition Description					Chronograph		Test Result
Manufacturer: PBS, LLC Model No.: Proactive Ballistic Inset Product Type: Wall Insert Panel Sample No.: 101 Size: 36.0" x 47.50" x 4.50"	Shot No.	Shot Location	Degree Obliquity	Caliber	Bullet Weight (gr.) / Type	TIME sx-5	VELOCITY ft/s	Penetration
	1	Top Left	0°	5.56x45mm	55 / M193	157.0	3185	No Penetration
	2	Top Right	0°	5.56x45mm	55 / M193	156.9	3187	No Penetration
	3	Bottom Right	0°	5.56x45mm	55 / M193	158.0	3165	No Penetration
	4	Bottom Left	0°	5.56x45mm	55 / M193	157.7	3171	No Penetration
	5	Center	0°	5.56x45mm	55 / M193	157.3	3179	No Penetration

This test was performed in accordance with the specification requirements and the results properly reflect the ballistic performance of the listed sample.

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**REMARKS / NOTES:**

- Testing witnessed by Robert Bailey and several other representatives of PBS, LLC
- Test shots 1-3 & 5 recorded using NTS high speed video and customer digital video (see attached high speed video files)
- \* Shot No. 4 was not recorded due to equipment malfunction

**Ammunition (IAW Table 3.1 and Paragraph 4.9) / Test Weapon**

Ammunition: 5.56x45mm 55 gr. FMJ / M193 (Full Metal Copper Jacket / Lead Core)  
 Test Barrel ID#: WC040882  
 Test Barrel Type 26" .223 Remington (1-8" Twist)  
 Test Velocity: 3080 - 3388 ft/s  
 Propellant: AR-Comp / 23.5 gr.

**Shot Location / Test Configuration Description:**

Mounting: Sample secured to NTS fixture and frame using two ratchet straps (top and bottom)  
 Configuration: Tested ICW a 1/8" cardboard witness sheet placed approximately 1.50 ft. behind defendant side of wall insert panel  
 Test Area: 15.50" x 12.0" (IAW customer request)  
 Shot Pattern: 5-Shot Die Pattern  
 Test Side: Assailant Side

**Shot Location Coordinates (described from shooter's perspective) / Shot Progression**

Shot No. 1: Top Left Shot impacted 15.0" from left edge; 14.25" from top edge  
 Shot No. 2: Top Right Shot impacted 17.0" from right edge; 14.25" from top edge  
 Shot No. 3: Bottom Right Shot impacted 17.0" from right edge; 9.50" from bottom edge  
 Shot No. 4: Bottom Left Shot impacted 15.0" from left edge; 9.50" from bottom edge  
 Shot No. 5: Center Shot impacted in the approximate center of shots 1-4; 22.75" from left edge; 13.50" from bottom edge

# NATIONAL TECHNICAL SYSTEMS

## BALLISTIC RESISTANCE TEST

Date Received: 04/03/18  
 Via: Hand Carry  
 Returned Via: Hand Carry

Record No.: PBS18001-2  
 Test Date: 04/03/18  
 Customer: Proactive Ballistic Systems, LLC

**Test Conditions**

Temperature: 69 °F  
 Humidity: 39 %  
 Test Spec.: Per Customer Request  
 Test Type: 12 Gauge Shotgun R&D Test  
 Shots Required: 3

**Range 3**

Muzzle to Screen 1: 4.38 ft.  
 Screen 1 - 2: 5.00 ft.  
 Screen 2 - Target: 5.11 ft.  
 Midpoint to Target: 7.61 ft.  
 Target to Witness: See Remarks  
 Witness: See Remarks  
 Barrel Length: 20 in.

Sample Tested Description		Shot / Ammunition Description					Chronograph		Test Result
Manufacturer:	Model No.:	Shot No.	Shot Location	Degree Obliquity	Caliber	Bullet Weight (gr.) /Type	TIME sx-5	VELOCITY ft/s	Penetration
PBS, LLC	Proactive Ballistic Inset	1	1	0°	12 Gauge Shotgun	6-Shot Buckshot	348.6	1434	No Penetration
Product Type: Wall Insert Panel		2	2	0°	12 Gauge Shotgun	6-Shot Buckshot	359.1	1392	Penetration
Sample No.: 101		3	3	0°	12 Gauge Shotgun	6-Shot Buckshot	364.1	1373	Penetration
Size: 36.0" x 47.50" x 4.50'									

This test was performed in accordance with the specification requirements and the results properly reflect the ballistic performance of the listed sample

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**REMARKS / NOTES:**

- Testing witnessed by Robert Bailey and several other representatives of PBS, LI
- Test shots 1 & 3 recorded using NTS high speed video and customer digital video (see attached high speed video file)
- \*Shot No. 2 was not recorded due to test set-up / equipment malfunction

**Test Ammunition (Customer Provided) / Test Weapon:**

Ammunition: Factory loaded Browning BXD Upland Extra Distance, 12 Gauge 2 3/4" 6-Shot 1 3/8 oz. Buckshot (B1935112)  
 Test Barrel ID#: WC040862  
 Test Barrel Type: 20" 12 Gauge Shotgun (Smooth Bore)  
 Test Velocity: 1400 +/- 50 ft/s (Muzzle Velocity)

**Shot Location / Test Configuration Description (described from shooter's perspective)**

**Shot No. 1:** Shot impacted 18.50" from right edge; 13.50" from bottom edge  
 Test Side: Defendant Side  
 Mounting: Wall insert panel secured to NTS fixture and frame using two ratchet straps (top and bottom)  
 Configuration: Tested ICW a sheet rock panel placed approximately 1.50" in front of assailant side of wall insert panel  
 Test Result: Full Penetrator

**Shot No. 2:** Shot impacted 16.50" from left edge; 13.50" from bottom edge  
 Test Side: Defendant Side  
 Mounting: Wall insert panel secured to NTS fixture and frame using two ratchet straps (top and bottom)  
 Configuration: Tested ICW a 2024-T3 aluminum witness sheet placed approximately 6.0" in front of assailant side of wall insert panel  
 Test Result: Full penetration of aluminum witness sheet; 100% Lethality anticipated

**Shot No. 3:** Shot impacted 23.50" from right edge; 17.0" from top edge  
 Test Side: Defendant Side  
 Mounting: Wall insert panel secured to NTS fixture and frame using two ratchet straps (top and bottom)  
 Configuration: Tested without a witness sheet placed in front of assailant side of wall insert panel (self-healing tape)  
 Test Result: Full Penetrator

# NATIONAL TECHNICAL SYSTEMS

## BALLISTIC RESISTANCE TEST

Date Received: 04/03/18  
 Via: Hand Carry  
 Returned Via: Hand Carry

Record No.: PBS18001-3  
 Test Date: 04/03/18  
 Customer: Proactive Ballistic Systems, LLC

**Test Conditions**

Temperature: 69 °F  
 Humidity: 39 %  
 Test Spec.: Per Customer Request  
 Test Type: 5.56x45mm M855 R&D Test  
 Shots Required: 1

**Range 3**

Muzzle to Screen 1: 3.89 ft.  
 Screen 1 - 2: 5.00 ft.  
 Screen 2 - Target: 4.79 ft.  
 Midpoint to Target: 7.29 ft.  
 Target to Witness: 1.50  
 Witness Sheet: N/A  
 Barrel Length: 26 in.

Sample Tested Description	Shot / Ammunition Description					Chronograph		Test Result
Manufacturer: PBS, LLC Model No.: Proactive Ballistic Insert Product Type: Wall Insert Panel Sample No.: 101 Size: 36.0" x 47.50" x 4.50"	Shot No.	Shot Location	Degree Obliquity	Caliber	Bullet Weight (gr.) /Type	TIME sx-5	VELOCITY ft/s	Penetration
		1	1	0°	5.56x45mm	62 / M855	161.5	3096

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**REMARKS / NOTES:**

- Testing witnessed by Robert Bailey and several other representatives of PBS, LLC
- Test shot 1 was not recorded using NTS high speed video IAW customer request

**Test Ammunition / Test Weapon:**

Ammunition: 5.56x45mm NATO 62 gr. FMJ / M855 (Full Metal Copper Jacket / Lead Slug with Steel Penetrator)  
 Test Barrel ID#: WC040882  
 Test Barrel Type: 26" .223 Remington (1-8" Twist)  
 Test Velocity: 3100 +/- 50 ft/s (Muzzle Velocity from an M16)  
 Propellant: AR-Comp / 23.5 gr.

**Shot Location / Test Configuration Description (described from shooter's perspective):**

Shot No. 1: Shot impacted 21.0" from left edge; 11.0" from top edge  
 Test Side: Assailant Side  
 Mounting: Wall insert panel secured to NTS fixture and frame using two ratchet straps (top and bottom)  
 Configuration: Tested without a witness sheet placed in front of assailant side of wall insert pane