

NIJ CTP BA Type IV Follow-up Inspection Test Report



NVLAP LAB CODE 200818-0

Test Laboratory Name: NTS-Wichita Division
Address: 7447 West 33rd Street North
Wichita, KS 67205

Report Identification Number: 17FIT032

Issue/ Revision Number: Initial Issue

Report Date: 31-Aug-17

Customer: Intertek
Address: 545 E. Algonquin Rd.
Arlington Heights, IL 60005

Test Order #: FIT-2017-06-18

Sample Information:

Applicant: RMA Armament, Inc.
Address: 22800 Dewey Rd
Centerville, IA 52544 U.S.A.

Manufacturer: RMA Armament, Inc.
Address: 22800 Dewey Rd
Centerville, IA 52544 U.S.A.

Model #: 1155
NIJ 0101.06 Threat Level: IV
Shot to Edge Distance (T1): 51 mm

Date Received: 8/22/17 via UPS
Condition (as received): Undamaged
Sample Identification: (1) 00201
Sample Identification: (3) 00203

(2) 00202
(4) 00204

FIT Phase 1 Test Summary:

Test Date Start: 31-Aug-17
Test Method/Standard: NIJ 0101.06
NIJ 0101.06 Threat Level: IV
Velocity Units: ft/s

Finish: 31-Aug-17

I. All samples were submerged in accordance with Clause 7.8.2 for "New" armor.

II. All samples were subjected to one "fair hits" per panel in accordance with Section 7.8.

Threat Bullet: .30 Caliber M2 AP (see Appendix A for additional information)
Threat Velocity: 2880 ft/s

III. Test Results indicate:

ARMOR COMPLIES WITH CTP FIT TEST REQUIREMENTS

Authorized Signatory: Jake Crawford
Function/Position: Range Operations Manager

Signature:

Date:

8/31/17

This test report may not be used to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the Federal Government.
Test results relate only to the items tested.
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Range Information:

Distance between trigger screen pair #1: 5.000 ft
 Distance between trigger screen pair #2: 4.085 ft
 Chronographs will report: time of flight μ s

Test Equipment:

Item	ID Number	Description	Calibration Dates		Acceptable
			Last	Next Due	
1.	WC023614	Chronograph Timer	17-Jun-16	17-Jun-18	YES
2.	WC023617	Chronograph Timer	18-Jun-16	18-Jun-18	YES
3.	WC023648	Digital Depth Gauge	06-Feb-17	06-Feb-18	YES
4.	WC023702	Digital Thermometer	25-May-17	25-May-18	YES
5.	WC023610	Hygro-Thermometer Clock	08-Dec-16	08-Dec-17	YES
6.	WC023574	Digital Timer	10-Jul-17	10-Jul-19	YES
7.	WC023575	Digital Timer	10-Jul-17	10-Jul-19	YES
8.	WC023577	Digital Timer	10-Jul-17	10-Jul-19	YES
9.	WC023571	Drop Sphere	13-Feb-17	13-Feb-18	YES
10.	WC040885 (Barrel)	26" .30-06 Springfield (1-10 Twist)			
11.					
12.					
13.					
14.					
15.					

Notes (including deviations from, additions to, or exclusions from the test method):

TEST METHODS (Range 3):

- 1) Testing IAW NLECTC-National Ballistic-Resistant Body Armor Inspection Scheme (Revision 24 June 2015) IAW Sections 7.3.5 c) Type IV, 7.4 Testing and Section 7.4.10 Hard Armor (or Rigid Armor) Surveillance Testing
- 2) Backing Material Surface Preparation (IAW NIJ 0101.06: Section 4.2.5.4): Nonplanar
- 3) Strapping Method (IAW NIJ 0101.06: Section 7.7.2.1): Figure 13. Diagram A. Standard Strapping Arrangement for Smaller Samples: Two Vertical Straps, Three Horizontal Straps

SAMPLE TESTED INFORMATION:

Sample Description: (4) Level IV Stand-Alone Plates IAW Section 7.3.5 c) Type IV - four ballistic panels

Size: 10" x 12" Lot No.: 231832 DoM: 08/16/17 Threat Level: IV

Style: Stand Alone Plate Cut: Shooter's Cut Curve: Single-Curve

Sample Weights (lbs.):

Sample ID (1): 8.23 Sample ID (2): 8.48 Sample ID (3): 8.28 Sample ID (4): 8.21

TEST REMARKS / NOTES:

- 1) Blake Waldrop representing the applicant was present to witness testing

TEST RESULTS IAW Section 7.5 Testing Specifications:

0 Perforations, Complies with CTP FIT Test Requirements

Project Manager: Zerger

Range Technician(s): Crawford

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FIT Type IV Test Data:

I. Sample 1

Threat: .30 Caliber M2 AP

Sample ID: 00201

A. Armor Submersion (7.8.2 for "New" armor).

			water temperature	Acceptable	
		°F	71.5	YES	
		Start	End	Total	Acceptable
submersion time (hh:mm)		9:55	10:25	0:30	YES
drying time (hh:mm)		10:25	10:35	0:10	YES

B. Backing Material Consistency Validation (4.2.5.6)

Block ID: 16
 Time: 10:30
 Temperature: 97 °F

mm	1	2	3	4	5	Acceptable
Indentation Depth:	19.46	18.22	19.54	16.23	17.48	YES
	Average					Acceptable
mm	18.186					YES

C. Perforation Test (7.8)

	Start	Stop		Acceptable
Ambient Temp:	72	73	°F	YES
Rel. Humidity:	48	50	%	YES
Time:	10:35	10:50		YES

Sample Identification	Angle	Screen 1 μs	Velocity 1 ft/s	Screen 2 μs	Velocity 2 ft/s	Acceptable (deviation)
00201	0°	1723	2901.92	1411	2895.11	YES
00202	0°	1727	2895.19	1414	2888.97	YES
00203	0°	1724	2900.23	1410	2897.16	YES
00204	0°	1731	2888.50	1412	2893.06	YES

Sample Identification	Mean Velocity ft/s	Velocity Fair	Fair Shot/Hit (Location/Velocit)	Perforate	Acceptable
00201	2898.51	YES	YES	NO	YES
00202	2892.08	YES	YES	NO	YES
00203	2898.70	YES	YES	NO	YES
00204	2890.78	YES	YES	NO	YES

D. Backing Material Consistency Validation (4.2.5.6)

Block ID: 16
 Time: 10:55
 Temperature: 96.3 °F

mm	1	2	3	4	5	Acceptable
Indentation Depth:	17.54	18.22	19.36	16.77	18.45	YES

mm	Average	Acceptable
mm	18.068	YES

V. Additional Backing Material Consistency Validations (4.2.5.6)

A. Performed: Not Used

Block ID:
 Time:
 Temperature: °F

mm	1	2	3	4	5	Acceptable
Indentation Depth:						N/A

mm	Average	Acceptable
mm		N/A

B. Performed: Not Used

Block ID:
 Time:
 Temperature: °F

mm	1	2	3	4	5	Acceptable
Indentation Depth:						N/A

mm	Average	Acceptable
mm		N/A

C. Performed: Not Used

Block ID:
 Time:
 Temperature: °F

mm	1	2	3	4	5	Acceptable
Indentation Depth:						N/A

mm	Average	Acceptable
mm		N/A