

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: 18FIT053
Issue/ Revision Number: Initial Issue
Report Date: 12-Oct-18

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

Test Order #: FIT-2018-07-03

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: 10/8/2018 via UPS
Condition (as received): Undamaged
Sample Identification: (1) 00207 (8.32 lbs.)
Sample Identification: (3) 00209 (8.34 lbs.)

(2) 00208 (8.38 lbs.)
(4) 00210 (8.31 lbs.)

FIT Phase 1 Test Summary:

Test Date Start: 11-Oct-18
Test Method/Standard: NIJ 0101.06
NIJ 0101.06 Threat Level: IV
Velocity Units: ft/s

Finish: 11-Oct-18

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:

10/12/18

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.	WC023615	Chronograph Timer	17-Jul-18	17-Jul-20	YES
2.	WC023616	Chronograph Timer	17-Jul-18	17-Jul-20	YES
3.	WC023650	Digital Depth Gauge	29-Jun-18	29-Jun-19	YES
4.	WC040911	Digital Thermometer	08-Sep-17	08-Sep-19	YES
5.	WC023609	Hygro-Thermometer Clock	02-Jul-18	02-Jul-19	YES
6.	WC023574	Digital Timer	10-Jul-17	10-Jul-19	YES
7.	WC023575	Digital Timer	10-Jul-17	10-Jul-19	YES
8.	WC023579	Digital Timer	10-Jul-17	10-Jul-19	YES
9.	WC023570 (#30)	Drop Sphere	10-Jul-18	10-Jul-19	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 1.2, 23 February 2018

IAW Section 7.4 Testing and Section 7.4.10 Hard Armor (or Rigid Armor) Surveillance Testing

IAW Section 7.4.10.1: Each ballistic plate shall be submerged per Section 7.8.2 and receive 1-Shot (Type IV)

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: IAW Section 7.3.6 (c) Type IV - four ballistic panels (plates)

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

Size: 10" x 12" Lot No.: 232625 Date of Mfg.: 10/03/18

TEST REMARKS / NOTES:

1) Drake Pasa and Cory Clark representing the applicant were present to witness testing

2) Shot Locations: Shot No. 1 (Crown); Shot No. 2 (Center); Shot No. 3 (Bottom Left); Shot No. 4 (Bottom Right)

TEST RESULTS IAW Section 7.5.4 Testing Specifications:

0 Perforations, Complies with CTP FIT Test Requirements

Project Manager: Elston

Range Technician(s): Nguyen

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FIT Type IV Test Data:**I. Sample 1**

Threat: .30 Caliber M2 AP

Sample ID: 00207 (8.32 lbs.)

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

			water temperature	Acceptable
		°F	69.6	YES
	Start	End	Total	Acceptable
submersion time (hh:mm)	9:00	9:30	0:30	YES
drying time (hh:mm)	9:30	9:40	0:10	YES

B. Backing Material Consistency Validation (4.2.5.6)

Block ID: #14
 Time: 9:36
 Temperature: 100.1 °F

mm	1	2	3	4	5	Acceptable
Indentation Depth:	18.02	18.44	18.03	17.38	19.18	YES

	Average	Acceptable
mm	18.21	YES

C. Perforation Test (7.8)

	Start	Stop		Acceptable
Ambient Temp:	71	72	°F	YES
Rel. Humidity:	40	41	%	YES
Time:	9:40	10:10		YES

Sample Identification	Angle	Screen 1 μs	Velocity 1 ft/s	Screen 2 μs	Velocity 2 ft/s	Acceptable (deviation)
00207 (8.32 lbs.)	0°	1729	2891.84	1410	2897.16	YES
00208 (8.38 lbs.)	0°	1739	2875.22	1422	2872.71	YES
00209 (8.34 lbs.)	0°	1738	2876.87	1420	2876.76	YES
00210 (8.31 lbs.)	0°	1737	2878.53	1419	2878.79	YES

Sample Identification	Mean Velocity ft/s	Velocity Fair	Fair Shot/Hit (Location/Velocity)	Perforate	Acceptable
00207 (8.32 lbs.)	2894.50	YES	YES	NO	YES
00208 (8.38 lbs.)	2873.97	YES	YES	NO	YES
00209 (8.34 lbs.)	2876.82	YES	YES	NO	YES
00210 (8.31 lbs.)	2878.66	YES	YES	NO	YES

D. Backing Material Consistency Validation (4.2.5.6)

Block ID: #14
 Time: 10:16
 Temperature: 99.3 °F

mm	1	2	3	4	5	Acceptable
Indentation Depth:	19.39	18.76	17.74	17.92	17.94	YES

mm	Average	Acceptable
mm	18.35	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