



Ballistic Resistance – Test Report

Client:	Fortress Armour Attention: Khalid Khames 15 Bishops Park Mid Calder West Lothian EH53 0SQ United Kingdom
Report date:	23 June 2017
Job number:	000007355
Test procedure and supporting documentation:	Per Customer Instructions NIJ-STD-0108.01, Level IIIA (Abbreviated)
Sample receipt, identification information, and disposition:	The sample(s) were received on 22 June 2017 . Sample item(s) were identified as a steel plate. The test sample(s) were inspected prior to testing and no anomalies were discovered. Sample(s) will be returned, discarded, or held, per customer instructions.
Test date(s) and location:	Testing commenced on 23 June 2017 , at the H.P. White Laboratory, Inc. facilities located at 3114 Scarboro Road, Street, Maryland. Testing concluded on 23 June 2017 .
Report prepared by:	Ashley Gowland, Customer Operations Coordinator
Report reviewed by:	Wesley Mason, Manager of Technical Operations - Hard Armor
Revision number and date:	NA
Test data transmittal method and storage location:	This test report and test data were transmitted via email in a manner compliant with ISO 17025 requirements. Permanent electronic and hardcopy files are maintained in accordance with HPWLI data storage policy on data storage systems, filed by job number.
Disclaimer:	Testing was performed on sample(s) provided by the client. H.P. White Laboratory, Inc. holds no responsibility for sample selection methods. This report is based on data obtained from testing only the sample(s) submitted, and should NOT be interpreted as an endorsement by H.P. White Laboratory, Inc. of the continuing quality or performance of any other items of the same, or similar, design. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government. This testing was performed by H.P. White Laboratory, Inc. to client specification, and the test results are the property of the client, who holds all rights of reproduction or publication of this report and related test data.
Destination control statement:	These items are controlled by the U.S. government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of, to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. government or as otherwise authorized by U.S. law and regulations.

Test Procedures

Ballistic Testing: All testing was conducted on an indoor range at ambient conditions, in accordance with your instructions and the abbreviated provisions of NIJ-STD-0108.01, Level IIIA. Testing was conducted using caliber 9mm, FMJ, 124 grain ammunition. The test sample(s) were positioned 16.5 feet from the muzzle of the barrel to produce zero (0°) degree obliquity impacts. Photoelectric infrared screens were located at 6.5 feet and 9.5 feet which, in conjunction with electronic chronographs, were used to compute bullet velocities at 8.0 feet forward of the muzzle. Penetrations were determined by visual examination of the 0.020-inch-thick 2024-T3 aluminum alloy witness plate, placed 6.0 inches behind and parallel to the test sample(s). Table I provides a summary of information on the attached data record(s).

Table I: Ballistic Resistance, Summary of Results

Test Sample			Set-Up			Results	
Sample No.	Thickness (in.) (a)	Weight (lbs.)	Caliber	Obliquity	Shots (b)	Velocity (fps) Max/Min	Penetrations
SAMPLE #1	0.085	5.89	9mm	0°	5	1449/1384	0
(a) Average of thickness measurements							
(b) Shot spacing: 4 on 8" square, 1 in center							
(c) See individual data record(s) for specific footnotes/remarks							

Report prepared by:



Ashley Gowland
Customer Operations Coordinator

Report reviewed by:



Wesley Mason
Manager of Technical Operations - Hard Armor



TEST PANEL

Manufacturer : FORTRESS ARMOUR
Size : 15.75 x 15.75 in.
Thicknesses : 0.085, 0.085, 0.085, 0.086 in.
Avg. Thick : 0.085 in.
Description : STEEL PLATE

Sample No. : SAMPLE #1
Weight : 5.89 lbs.
Hardness : NA
Plies/Laminates : NA

Date Rec'd. : 6/22/17
Via :
Returned :

SET-UP

Shot Spacing : 4 ON 8" SQUARE - 1 IN CENTER
Witness Panel : 0.020", 2024-T3 ALUMINUM
Obliquity : 0 deg.
Backing Material : NA
Conditioning : AMBIENT

Primary Vel. Screens : 6.5 ft., 9.5 ft.
Primary Vel. Location : 8.0 ft. From Muzzle
Residual Vel. Screens : NA
Residual Vel. Location : NA
Range to Target : 16.5 ft.
Target to Wit. : 6.0 in.

Range No. : 3
Temp. : 68 F
BP : 29.95 in. Hg
RH : 58%
Barrel No./Gun : R3 9mm
Gunner : CHES
Recorder : WOLFE

AMMUNITION

(1) : 9mm, FMJ, 124 gr.
(2) :
(3) :
(4) :

Lot No. : HPW-23558
Lot No. :
Lot No. :
Lot No. :

APPLICABLE STANDARDS OR PROCEDURES

- (1) : NIJ-STD-0108.01 (ABBREVIATED)
(2) : LEVEL IIIA
(3) : REQUIRED VELOCITY: 1350-1450 FPS

Table with 9 columns: Shot No., Ammo., Time 1 (usec), Velocity 1 (ft/s), Time 2 (usec), Velocity 2 (ft/s), Avg. Vel. (ft/s), Penetration, Footnotes. Contains 5 rows of test data.

REMARKS : FOOTNOTES :