



Ballistic Resistance – Test Report

	C-Bond Systems
Client:	Attention: Bruce Rich 6035 South Loop East Houston, TX 77033
Report date:	30 March 2017
Job number:	000007008G
Test procedure and supporting documentation:	P.O. # 1304 NIJ-STD-0108.01
Sample receipt, identification information, and disposition:	The sample(s) were received on 23 March 2017 . Sample item(s) were identified as annealed glass. 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 29 March 2017 , at the H.P. White Laboratory, Inc. facilities located at 3114 Scarboro Road, Street, Maryland. Testing concluded on 29 March 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 II. 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
CB4L133	0.538	15.11	9mm	0°	5	1211/1144	0
(a) Average of thickness measurements (b) Shot spacing: Per Customer Request (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 : C-Bond systems, LLC
Size : 18 x 18 in.
Thicknesses : 0.537, 0.537, 0.540, 0.540 in.
Avg. Thick : 0.538 in.
Description : 1/2" annealed glass
(GROUP 3)

Sample No. : CB4L133 (9mm)
Weight : 15.11 lbs.
Hardness : NA
Plies/Laminates : NA

Date Rec'd. : 3/23/17
Via : Federal Express
Returned : N/A

SET-UP

Shot Spacing : PER CUSTOMER REQUEST
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. : 72 F
BP : 30.10 in. Hg
RH : 48%
Barrel No./Gun : R3/ 9mm
Gunner : CHES
Recorder : BONSALL

AMMUNITION

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

Lot No. : REM. 23558
Lot No. :
Lot No. :
Lot No. :

APPLICABLE STANDARDS OR PROCEDURES

- (1) : NIJ-STD-0108.01
- (2) : LEVEL II
- (3) : REQUIRED VELOCITY: 1135-1215 FPS.

Shot No.	Ammo.	Time 1 (usec)	Velocity 1 (ft/s)	Time 2 (usec)	Velocity 2 (ft/s)	Avg. Vel. (ft/s)	Penetration	Footnotes
1	1	2523	1189	2523	1189	1189	None	
2	1	2478	1211	2478	1211	1211	None	
3	1	2622	1144	2622	1144	1144	None	
4	1	2528	1187	2528	1187	1187	None	
5	1	2523	1189	2523	1189	1189	None	

REMARKS :	FOOTNOTES :