



ARMOR RESEARCH
C O M P A N Y
DEDICATED TO SAVING LIVES

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WARRANTY

Armor Research Company, Inc. (ARC) offers a 7-year armor panel warranty for ballistic performance, and defects in workmanship and materials from the date of purchase. This warranty is only applicable when the armor panel has been properly stored, and if such defects occurred during normal and intended use. This warranty is offered only for the threat level indicated. Excluded are armor panels that have been subjected to misuse or abuse. This warranty does not apply if ARC in its sole discretion determines the armor panel has been subjected to misuse, neglect, alteration, improper storage, improper handling, unauthorized repair or accident.

ARC offers a 2-year shield carrier warranty for workmanship and material defects from the date of purchase. This warranty is only applicable when such defects occur during normal and intended use. This warranty does not apply if ARC, in its sole discretion determines the shield carrier has been subjected to misuse, neglect, alteration, improper storage, improper handling, unauthorized repair or accident.

SPECIFICATIONS

The ballistic shield panel has been independently tested by a NIJ Certified Ballistic Laboratory (Oregon Ballistic Laboratories - OBL) to the National Institute of Justice ("NIJ") 0108.01 Standard for Ballistic Resistant Protective Materials. The NIJ threat level is indicated on the sticker placed on back side of the ballistic shield panel. The ballistic performance claim is only valid as of the time of sale, and is not applicable to any used ballistic shield panel. This certification only applies to the initial customer (agency) and does not apply to any subsequent user or purchaser of the Shield. The ballistic shield panel has been tested and is intended to be resistant against only those threats specifically identified in the NIJ Standard for the NIJ threat level indicated on the shield sticker.

LIMITATIONS

This Warranty is the sole and exclusive warranty by ARC relating to the Shield. It shall not be enlarged, extended or increased by any representations, descriptions, course of dealing, trade usage, rendering of technical advice, service, samples, models, or otherwise. Furthermore, it shall not be altered or expanded by any acts, statements, or agreements of any dealer, employee, or agent of ARC (other than by a duly authorized executive officer of ARC). ARC MAKES NO OTHER WARRANTIES EXPRESS, IMPLIED, OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY. IN NO EVENT SHALL ARC BE LIABLE FOR ANY PUNITIVE, EXEMPLARY, OR CONSEQUENTIAL DAMAGES, ANTICIPATED OR LOST PROFITS, INCIDENTAL DAMAGES, LOSS OF TIME, OR OTHER INDIRECT LOSSES OR EXPENSES THAT ARISE FROM ANY CAUSE RELATING TO THE SHIELD, REGARDLESS OF THE FORM OF THE ACTION, WHETHER IN TORT (INCLUDING NEGLIGENCE), CONTRACT, STRICT LIABILITY OR OTHERWISE, AND REGARDLESS OF WHETHER ARC HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH CONSEQUENTIAL DAMAGES. NOTWITHSTANDING ANY CONTRARY PROVISION, IN NO EVENT SHALL THE TOTAL LIABILITY OF ARC (TOGETHER WITH THE LIABILITY OF ITS OFFICERS, DIRECTORS, EMPLOYEES, AND AGENTS) EXCEED THE PURCHASE PRICE ACTUALLY PAID FOR THE SHIELD THAT GIVES RISE TO SUCH LIABILITY. The foregoing disclaimers are subject to any applicable laws that regulate product warranties.

LIMITED REMEDIES

ARC's warranty liability is solely and exclusively limited to replacement, repair, or pro-rated purchase price credit (at ARC's sole election) for any shield returned pursuant to this Warranty during an applicable warranty period. All returns shall be made to ARC, Inc. (freight prepaid by the buyer) and must include (1) proof of issue/purchase, and (2) documentation specifying the claimed defect and/or any associated testing results. All warranty claims are subject to verification by ARC.

WARNINGS

LIMITED IMPACT PROTECTION. The Shield is intended to reduce or prevent injuries from threats identified in the NIJ Standard for the NIJ threat level indicated on the sticker placed on the Shield. Notwithstanding the foregoing, the Shield cannot protect against all threats. Impact forces from bullets or other threats can still result in serious injury or death.

THE SHIELD CANNOT PROTECT AGAINST ALL THREATS. The User is expressly informed that using the Shield does not release the User from undertaking appropriate self-protection measures when in a situation posing a threat.

THE SHIELD IS TESTED AGAINST SPECIFIC THREATS BASED ON NIJ COMPLIANCE TESTING CRITERIA. Unless otherwise stated, the Shield has not been tested against non-NIJ compliant threats and is not warranted to combat non-NIJ specified rounds. The Shield is not blast resistant, fire resistant, or designed to be used with simunitions or paintballs.

THE SHIELD CANNOT PROTECT WHAT IT DOES NOT COVER. The Shield offers protection to only those areas that it covers. The Shield does not protect shoulders, arms, hands or any other part of the body exposed in order to fire a weapon, or any other area of the body it does not otherwise cover. Strenuous movements or physical altercations may cause the User's body to be exposed and not directly behind the shield and thus affecting actual coverage. A User's height, weight, or changes in body shape or contour, can also affect actual coverage.

THE SHIELD IS NOT INTENDED TO PROTECT MULTIPLE PERSONS. The User is expressly informed that the Shield has not been tested to protect persons standing behind the User. The Shield offers protection to only those areas that it covers, and persons standing behind the User may not be covered or otherwise protected.

THE SHIELD WORKS BY DISSIPATING ENERGY ACROSS THE SURFACE OF THE SHIELD. Should the Shield be struck by a threat within two inches of the edge, the Shield's ability to dissipate the energy may be compromised. The foregoing event may result in the Shield not being able to combat the threat.

THE GREATER THE ANGLE AT WHICH A ROUND STRIKES THE SHIELD, THE GREATER THE POSSIBILITY THE ROUND MAY RICOCHET OR SLIDE OFF THE SIDE OF THE SHIELD. A ricochet may travel at a high rate of speed which could result in severe injury or death.

A MULTIPLE ROUND BURST STRIKING THE SHIELD IN A TIGHT SHOT PATTERN MAY SUFFICIENTLY WEAKEN THAT AREA OF THE SHIELD AND RESULT IN A COMPLETE PENETRATION OF THE SHIELD. The Shield is dependent upon the many layers of material working together to provide sufficient resistance to a threat, and multiple rounds striking the Shield in a tight shot pattern may result in a penetration of the Shield causing severe injury or death.

PERFORMANCE

A shield that is damaged, improperly stored or handled may negatively impact the shield's performance. The resistance and performance of a shield are known to change with time and wear, especially when exposed to extreme environmental conditions. The Shield should not be stored in places where it is exposed to high temperatures for long periods of time. Exposure to such extreme environmental conditions may negatively impact the shield's performance. An example of an extreme environmental condition would include long term exposure to heat in excess of 168° Fahrenheit. Although most vehicle interiors within the Continental United States are generally below this range during normal summer months, some areas within the CONUS may reach or exceed these extremes. Periodically inspect your ballistic shield panel for any abnormalities or damage.

STORAGE

To maximize the longevity of your shield's performance, always keep your ballistic shield panel stored within the protective shield carrier. Store or transport in a vertical position when possible. Do not store heavy items on top of or against your shield. Keep your shield in a shaded area of your vehicle to reduce direct heat and sun exposure from the vehicle's windows. ALWAYS REMOVE YOUR SHIELD FROM YOUR VEHICLE AT THE END OF EACH WORK DAY AND STORE IN A CLIMATE CONTROLLED AREA. During extreme heat temperatures it is recommended to keep the interior of your vehicle climate controlled as much as possible during your shift. Always treat your shield like the lifesaving equipment that it is.

FAILURE TO FOLLOW THE INSTRUCTIONS AND THE WARNINGS CONTAINED IN THIS WARRANTY AND IN THE STORAGE AND CARE INSTRUCTIONS ACCOMPANYING THIS PRODUCT EXPLICITLY AUTOMATICALLY VOIDS THIS WARRANTY IN ALL RESPECTS AND COULD LEAD TO SERIOUS INJURY OR DEATH.

SEVERABILITY

If any of the terms and provisions of this Warranty are in violation of, or prohibited by, any applicable law or regulation, such terms and provisions shall be deemed as amended or deleted to conform for such law or regulation without invalidation or amending or deleting any of the other terms or conditions of this Warranty.



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August 14th, 2023

Armor Research Company
6440 Schirlls St
Las Vegas, NV 89118
ATTN: Kenneth C Hall

Dear Mr. Hall:

In accordance with your instructions, Oregon Ballistic Laboratories conducted Ballistic Resistance testing (V_0) on three samples.

The samples were tested in accordance with NIJ-STD-0108.01 Level III (modified) – Special Threat in an indoor range with the muzzle of the test barrel mounted 50 feet from the target and positioned to produce 0-degree obliquity impacts. Four infrared velocity light screens, in conjunction with time-based frequency counters, were placed such that projectile velocity was measured 8.25 feet from the target. Penetrations were determined by examination of a piece of 0.020-inch 2024-T3 aluminum mounted 6 inches behind and parallel to the test sample. Results for all testing performed for this purpose are summarized in the following table.

Test Sample			Ballistic Threat				Results	
OBL No.:	Serial No.:	Weight (lbs.)	Projectile	Shots	Velocity (fps)		Penetrations	Pass/Fail
					Min.	Max.		
36138	23770	9.80	M193	25	3224	3292	0	<u>PASS</u>
36139	23771	9.80	M80 Copper	6	2744	2799	0	<u>PASS</u>
36140	23772	9.75	Type 56 MSC	5	2387	2403	0	<u>PASS</u>

*Data shown in the table represents fair impacts only.

This report pertains only to the samples tested and may not be modified or edited in any way. This report may not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any federal government agency. Samples will be maintained at Oregon Ballistic Laboratories for 30 days and discarded unless other instructions are received. If you have any further questions or concerns, don't hesitate to contact us.

Darius Nuttbrock
Ballistic Test Director
Oregon Ballistic Laboratories
503.689.5134
Email: dnuttbrock@oregonbl.com

This report pertains only to the samples tested and may not be modified or edited in any way. This report may not be used to claim product certification, approval, or endorsement by NVLAP®, NIST, or any Federal Government agency. Contributors to measurement of uncertainty: Velocity- tape measure used for screen spacing, Measurement of uncertainty of frequency counters BFD- Measurement of uncertainty of depth gauges



BALLISTIC RESISTANCE TEST - V₀

Customer: Armor Research Company
OBL ID#: 36138
Date Rcv'd: 8/10/2023
Test Date: 8/10/2023
Purchase Order: 2324

TEST SAMPLE

Serial No.: Z3770
Model No.: CRS26 Lot No.:
230067
Plies: N/A
Description: Level III Ballistic Shield

Size (in.): 17 x 26
Weight (lb.): 9.80
Thickness:
Avg. Thk. (in):

RANGE SET-UP

Range to Target: 50 ft.
Screen Dist. Vel. 1 (ft.): 5
Screen Dist. Vel. 2 (ft.): 4
Screen 4 to target (ft): N/A
Primary Vel. Location: 8.25 ft. from target
Striking Velocity: No
Target to Witness: 6 in.
Witness Panel: 0.020" 2024-T3 Alum.
Backing Material: N/A 0
Obliquity: Degrees
Barrel: 5.56mm NATO/1:7/30"

Range #: 2
Temperature: 68.4 °F
Bar. Pressure: 29.83 in. Hg
Rel. Humidity: 48.0 %
Sample Temp.: Amb. °F
Recorder: Jason Stone
Gunner: Nathan Myers

CLAY CALIBRATION NOT REQUIRED

Pre Test:
Clay Drops (mm):
Drop Avg (mm):
Clay Temp °F:
Clay Box #:
Post Test:
Clay Drops (mm):
Drop Avg (mm):
Clay Temp °F:

AMMUNITION

Projectile: 5.56mm M193 Ball

Powder: IMR 4227

STANDARDS / PROCEDURES

NIJ-STD-0108.01 Level III (mod) - Special Threat

Required Velocity: 3250 fps ± 30 fps

SHOT NO.	PROJECTILE WT. (gr.)	POWDER WT. (gr.)	TIME 1 μs (10-6)	TIME 2 μs (10-6)	VELOCITY 1 ft/s	VELOCITY 2 ft/s	AVERAGE VELOCITY	PENET. P/C	OBLIQUITY	CALIPER BFD	NOTES
1	55.5	20.1	1529	1220	3270	3279	3275	P	0°		
2	55.1	20.1	1532	1225	3264	3265	3265	P	0°		
3	55.4	20.1	1536	1232	3255	3247	3251	P	0°		
4	55.4	20.1	1570	1252	3185	3195	3190	UH	0°		Insufficient Velocity
5	55.2	20.1	1541	1233	3245	3244	3245	P	0°		
6	55.1	20.1	1549	1235	3228	3239	3234	P	0°		
7	55.5	20.1	1536	1225	3255	3265	3260	P	0°		
8	55.5	20.1	1550	1242	3226	3221	3224	P	0°		
9	55.3	20.1	1541	1229	3245	3255	3250	P	0°		
10	55.3	20.1	1531	1222	3266	3273	3270	P	0°		
11	55.1	20.1	1520	1214	3289	3295	3292	P	0°		
12	55.3	20.1	1550	1242	3226	3221	3224	P	0°		
13	55.4	20.1	1530	1219	3268	3281	3275	P	0°		
14	55.3	20.1	1549	1239	3228	3228	3228	P	0°		
15	55.1	20.1	1550	1236	3226	3236	3231	P	0°		
16	55.1	20.1	1537	1226	3253	3263	3258	P	0°		
17	55.3	20.1	1552	1238	3222	3231	3227	P	0°		
18	55.1	20.1	1533	1223	3262	3271	3267	P	0°		
19	55.1	20.1	1541	1229	3245	3255	3250	P	0°		
20	55.2	20.1	1544	1232	3238	3247	3243	P	0°		
21	55.2	20.1	1526	1217	3277	3287	3282	P	0°		
22	55.1	20.1	1530	1221	3268	3276	3272	P	0°		
23	55.2	20.1	1551	1239	3224	3228	3226	P	0°		
24	55.6	20.1	1528	1222	3272	3273	3273	P	0°		
25	55.4	20.1	1541	1229	3245	3255	3250	P	0°		
26	55.3	20.1	1534	1224	3259	3268	3264	P	0°		

REMARKS:

P=Partial Penetration
C=Complete Penetration
UH=Unfair Hit
Projectile Yaw Check: <5° for all velocity shots

TEST RESULTS:

Test sample satisfied the ballistic requirements given.

FOOTNOTES:

Customer: Armor Research Company
 OBL ID#: 36139
 Date Rcv'd: 8/10/2023
 Test Date: 8/10/2023
 Purchase Order: 2324

TEST SAMPLE

Serial No.: 23771
 Model No.: CRS26 Lot No.:
 230067
 Plies: N/A
 Description: Level III Ballistic Shield

Size (in.): 17 x 26
 Weight (lb.): 9.80
 Thickness:
 Avg. Thk. (in):

RANGE SET-UP

Range to Target: 50 ft.
 Screen Dist. Vel. 1 (ft.): 5
 Screen Dist. Vel. 2 (ft.): 4
 Screen 4 to target (ft): N/A
 Primary Vel. Location: 8.25 ft. from target
 Striking Velocity: No
 Target to Witness: 6 in.
 Witness Panel: 0.020" 2024-T3 Alum.
 Backing Material: N/A 0
 Obliquity: Degrees
 Barrel: .308/1:12/30"

Range #: 2
 Temperature: 68.4 °F
 Bar. Pressure: 29.83 in. Hg
 Rel. Humidity: 48.0 %
 Sample Temp. Amb. °F
 Recorder: Jason Stone
 Gunner: Nathan Myers

Pre Test:
 Clay Drops (mm):
 Drop Avg (mm):
 Clay Temp °F:
 Clay Box #:
 Post Test:
 Clay Drops (mm):
 Drop Avg (mm):
 Clay Temp °F:

CLAY CALIBRATION NOT REQUIRED

AMMUNITION

Projectile: 7.62x51mm 147gr. M80 Ball Copper Jacket

Powder: VihtaVuori N130

STANDARDS / PROCEDURES

NIJ-STD-0108.01 Level III

Required Velocity: 2750 fps ± 50 fps

SHOT NO.	PROJECTILE WT. (gr.)	POWDER TIME 1 μs (10-4) WT. (gr.)	TIME 2 μs (10-4)	VELOCITY 1 ft/s	VELOCITY 2 ft/s	AVERAGE VELOCITY	PENET. P/C	OBLIQUITY	CALIPER BFD	NOTES
1	148.0	36.9	1815	1452	2755	2755	P	0°		
2	147.5	36.9	1784	1431	2803	2795	P	0°		
3	147.9	36.8	1820	1460	2747	2740	P	0°		
4	147.7	36.8	1808	1452	2765	2755	P	0°		
5	148.1	36.8	1799	1444	2779	2770	P	0°		
6	147.8	36.8	1801	1445	2776	2772	P	0°		

REMARKS:

P=Partial Penetration
 C=Complete Penetration
 UH=Unfair Hit
 Projectile Yaw Check: <5° for all velocity shots

TEST RESULTS:

Test sample satisfied the ballistic requirements given.

FOOTNOTES:



BALLISTIC RESISTANCE TEST - V₀

Customer: Armor Research Company
OBL ID#: 36140
Date Rcv'd: 8/10/2023 Test
Date: 8/11/2023
Purchase Order: 2324

TEST SAMPLE

Serial No.: 23772
Model No.: CRS26 Lot No.:
230067
Plies: N/A
Description: Level III Ballistic Shield

Size (in.): 17 x 26
Weight (lb.): 9.75
Thickness:
Avg. Thk. (in):

RANGE SET-UP

Range to Target: 50 ft.
Screen Dist. Vel. 1 (ft.): 5
Screen Dist. Vel. 2 (ft.): 4
Screen 4 to target (ft): N/A
Primary Vel. Location: 8.25 ft. from target
Striking Velocity: No
Target to Witness: 6 in.
Witness Panel: 0.020" 2024-T3 Alum.
Backing Material: N/A 0
Obliquity: Degrees
Barrel: 7.62x39mm/1:9.45/30"

Range #: 2
Temperature: 68.6 °F
Bar. Pressure: 29.86 in. Hg
Rel. Humidity: 51.0 %
Sample Temp. Amb. °F
Recorder: Jason Stone
Gunner: Nathan Myers

Pre Test:
Clay Drops (mm):
Drop Avg (mm):
Clay Temp °F:
Clay Box #:
Post Test:
Clay Drops (mm):
Drop Avg (mm):
Clay Temp °F:

CLAY CALIBRATION NOT REQUIRED

AMMUNITION

Projectile: 7.62x39mm Type 56 MSC

Powder: IMR 4227

STANDARDS / PROCEDURES

NIJ-STD-0108.01 Level III (mod) - Special Threat

Required Velocity: 2380 fps ± 30 fps

SHOT NO.	PROJECTILE WT. (gr.)	POWDER WT. (gr.)	TIME 1 μs (10 ⁻⁶)	TIME 2 μs (10 ⁻⁶)	VELOCITY 1 ft/s	VELOCITY 2 ft/s	AVERAGE VELOCITY	PENET. P/C	OBLIQUITY	CALIPER BFD	NOTES
1	122.9	22.7	2094	1671	2388	2394	2391	P	0°		
2	122.8	22.7	2099	1672	2382	2392	2387	P	0°		
3	122.7	22.7	2092	1671	2390	2394	2392	P	0°		
4	123.1	22.7	2097	1671	2384	2394	2389	P	0°		
5	123.1	22.7	2083	1663	2400	2405	2403	P	0°		

REMARKS:

P=Partial Penetration
C=Complete Penetration
UH=Unfair Hit
Projectile Yaw Check: <5° for all velocity shots

TEST RESULTS:

Test sample satisfied the ballistic requirements given.

FOOTNOTES: