

# H.P. WHITE LABORATORY, INC.

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10 May 2006  
(HPWLI 10157-01A)  
(Revised 7 May 2008)

Sports-O-Zone USA, LLC  
425 Pine Creek Court  
Elkhart, Indiana 46516

Attention: Mr. Mark Eades

Gentlemen:

In accordance with your authorization, H.P. White Laboratory, Inc. conducted Ballistic Limit, Protection (V50BL[P]) testing of two front vest panels, identified as being manufactured by RBR Tactical Armor, Inc., Model RBR-FLEX35, received 31 March 2006 via United Parcel Service.

Testing was conducted in accordance with your instructions, and the provisions of MIL-STD-662F, using caliber .22, 17 grain, fragment simulator projectiles conforming to the provisions of MIL-P-46593A. The test samples were mounted on an indoor range 15.0 feet from the muzzle of a test barrel to produce zero degree obliquity impacts. Redundant electro-optical sensors were positioned at 5.0 and 10.0 feet which, in conjunction with elapsed time counters (chronographs), were used to determine projectile velocities 7.5 feet from the muzzle. Penetrations were determined by visual examination of a 0.020 inch thick sheet of alloy 2024T3 aluminum positioned 6.0 inches behind, and parallel to, the test samples. Table I presents a summary of the enclosed data records.

TABLE I. SUMMARY OF RESULTS

Test Sample			Ballistic Threat		Ballistic Limit (fps)		
Number	Weight (lbs.)	Plies	Caliber	Shots Total/V50	V50 BL(P)	High Partial	Low Complete
RBR-FLEX35-0105 (a)	3.01	35	.22 FSP	12/10	2032	2027	2027
RBR-FLEX35-0205 (b)	3.28	35	.22 FSP	12/10	2144	2146	2166


(a) Identified by client as "green, untreated".  
(b) Identified by client as "black, treated".

The data presented in Table I, albeit limited, demonstrate no evidence of a decrease in ballistic resistance as a result of the treatment process. This report is based on data obtained from having tested only the samples 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.

In accordance with your instructions, the test samples are being discarded. Should you have any questions regarding this matter, or if we may be of any further service, please do not hesitate to contact us.

Very truly yours,

H.P. White Laboratory, Inc.



Craig B. Dunn

CBD/lt  
Enclosures



# H.P. White Laboratory, Inc.

## PROTECTION BALLISTIC LIMIT TEST, V50 BL(P)

Client : SPORTS-O-ZONE USA, LLC

Job No. : 10157-01

Test Date : 5/9/06

### TEST PANEL

Manufacturer : RBR TACTICAL ARMOR, INC.  
 Size : LARGE in.  
 Thicknesses : NA  
 Avg. Thick. : NA  
 Required BL(P) :

Sample No. : RBR-FLEX35-0105  
 Heat No. : NA  
 Weight : 3.01 lbs.  
 Hardness : NA  
 Plies/Laminates : 35

Date Rec'd. : 3/31/06  
 Via : UPS  
 Returned : N/A

Description : FRONT VEST PANEL (RBR-FLEX35) (Green) Carrier Lot # 0105, Insert Lot # 0205  
 35 PLYS FLEX. WOVEN ARAMID FILM - 1 BAR TACK TOP CENTER AND 1 BAR TACK BOTTOM CENTER

### SET-UP

Shot Spacing : PER MIL-STD-662F  
 Witness Panel : 0.020", 2024-T3 ALUMINUM  
 Obliquity : 0 deg.  
 Backing Material : NA  
 Conditioning : AMBIENT

Primary Vel. Screens : 5.0 ft., 10.0 ft.  
 Primary Vel. Location : 7.5 ft. From Muzzle  
 Residual Vel. Screens : NA  
 Residual Vel. Location : NA  
 Range to Target : 15.0 ft.  
 Target to Wit. : 6.0 in.

Range No. : 3  
 Temp. : 70 F  
 BP : 30.01 in. Hg  
 RH : 53%  
 Barrel No./Gun : TEST BARREL  
 Gunner : POOLE  
 Recorder : POOLE

### AMMUNITION

Projectile : .22 Fragment Simulator, 17 gr.  
 Powder : PURPLE

Lot No. : NA

### APPLICABLE STANDARDS OR PROCEDURES

- (1): MIL-STD-662F
- (2):
- (3):

Shot No.	Powder/ Seating	Time 1 (usec)	Velocity 1 (ft/s)	Time 2 (usec)	Velocity 2 (ft/s)	Avg. Vel. (ft/s)	Vel. Loss (ft/s)	V-Strike (ft/s)	Result	Include in V50	Footnotes
1	12	2249	2223	2258	2214	2219	102	2117	C		
2	14	2350	2128	2360	2119	2123	97	2026	P	Y	
3	12	2258	2214	2267	2206	2210	101	2109	C		
4	14	2359	2120	2367	2112	2116	97	2019	P	Y	
5	12	2262	2210	2271	2202	2206	101	2105	C	Y	
6	14	2348	2129	2358	2120	2125	98	2027	C	Y	
7	15	2403	2081	2412	2073	2077	95	1981	P	Y	
8	14	2342	2135	2351	2127	2131	98	2033	C	Y	
9	15	2399	2084	2409	2076	2080	96	1984	P	Y	
10	14	2350	2128	2358	2120	2124	98	2027	P	Y	
11	13	2286	2187	2296	2178	2182	100	2082	C	Y	
12	14	2336	2140	2345	2132	2136	98	2038	C	Y	

#### REMARKS :

#### FOOTNOTES :

#### V50 SUMMARY :

No. Points : 5 & 5  
 V50 : 2032  
 High Partial : 2027  
 Low Complete : 2027  
 Range of Results : 124  
 Range of Mixed : 0

