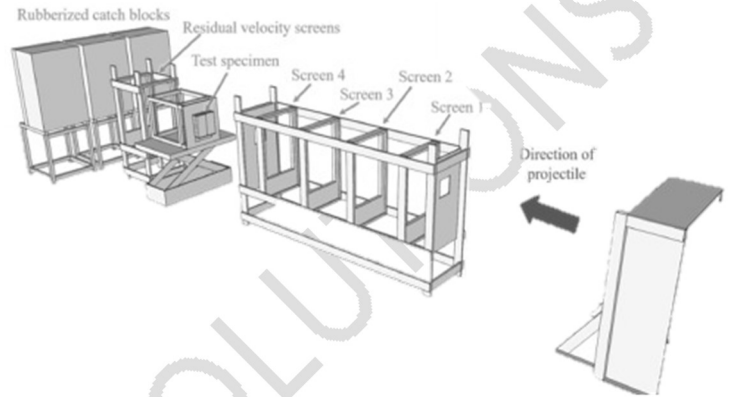




PRODUCT: MK-1 HD



TEST SET-UP:



TEST PROCEDURE: UL 752 Level 8

- The objective of this test was to conduct a ballistic resistance test on the samples in accordance with UL 752 Level 8.
- These samples are shot in a closed environment with a universal receiver with the appropriate barrel.
- Shot spacing between multiple impacts on each sample was in accordance with the referenced performance standard. Shots against the samples were performed at 0.0 obliquity and ambient range temperature (66 ± 1 F). For each shot, the target was clamped to a rigid test fixture.
- A piece of 0.125 in-thick (3mm) cardboard was mounted along the shot line, approximately $457 \text{ mm} \pm 13 \text{ mm}$ (18 in \pm 0.5 in) behind the target to verify penetrations. A complete penetration is defined as the witness material becoming perforated (light visible through material).
- All firings were conducted at 15.00 ft from the target. Projectile velocities used in the test were in accordance with the UL752 standard. UL 752 Level 8 requires 3" (+/- .5") spacing & 5 shot spread pattern

TESTING PHOTOS



Threat

Secure

3RD-PARTY TESTING ORGANIZATION





BALLISTIC RESISTANCE TEST

NTS-Chesapeake Testing

4603B Compass Point Road
Belcamp, MD 21017

Client: Total Security Solutions, Inc.
Job No.: 2692-009-9
Test Date: 8/14/2020

Test Panel

Description: Frame and voice port.

Manufacturer: Total Security Solutions, Inc.

Sample No.: MK-1 Voice port-1

Size: See Remarks
Avg. Thick: NA
Thickness: See Remarks

Weight: See Remarks
Plies/Laminates: NA

Date Received: 7/24/2020
Via: R and L carriers
Returned: NA

Setup

Shot Spacing: UL-752 Level 8
Witness Panel: .125 in Cardboard
Backing Material: NA
Condition: Ambient

Primary Vel. Screens (ft): 5.000, 5.333,
9.667, 10.000
Primary Vel. Location (ft): 7.500
Range to Target (ft): 15.000
Target to Witness (in): 18.000

Range No.: 6
Temp: 66.2 °F
BP: 29.8 inHg
RH: 52.2%
Barrel/Gun: Test Barrel
Gunner: Jacob Arisman
Recorder: Jacob Arisman

Ammunition

Projectile	Lot No.	Powder
(1) 7.62 x 51-mm, 150-grain M80 FMJ copper jacket	Military	N133

Applicable Standards or Procedures

- (1) UL-752 Level 8
- (2) Customer request

Shot No.	Ammo	Weight (gr)	Time 1 (µs)	Vel. 1 (ft/s)	Time 2 (µs)	Vel. 2 (ft/s)	Avg. Vel. (ft/s)	Striking Vel. (ft/s)	Penetration	Obliq. (°)	Footnotes
1	1	148.4	1720	2907	1493	2902	2905	2905	None	0.0	
2	1	148.2	1722	2904	1495	2899	2901	2901	None	0.0	
3	1	147.2	1698	2945	1473	2942	2943	2943	None	0.0	
4	1	148.7	1710	2924	1481	2926	2925	2925	None	0.0	
5	1	147.9	1703	2936	1476	2936	2936	2936	None	0.0	

Remarks:

Projectile yaw check: 0° yaw on all impacts
Requested velocity: 2750-3025 ft/s
No size, weight, or thicknesses taken due to sample structure.

Footnotes: