

# Brass Fetcher Ballistic Gelatin Testing evaluates the Glaser Silver Safety Slug +P (80gr. Projectile)

## Introduction

In order to quantitatively evaluate the terminal ballistic performance of the Glaser 'Silver' Safety Slug and ascertain its potential suitability for reduced-penetration usage in a densely populated area, a single block of 10% ordinance gelatin was utilized to capture the wound track of two of said bullets, fired separately at opposing ends of a 16"x6"x6" block.

To provide test conditions that correspond to a scenario in which this type of ammunition might be employed (and for which this ammunition is marketed), namely inside of an occupied structure during a home defense situation or an officer-involved shooting inside of a dwelling, one Safety Slug was fired into a bare gelatin block and one shot was fired into a bare gelatin block, with an interior wall acting as an intermediate barrier between the gelatin and the bullet.

The first case, that of the bare gelatin block, was done in the interest of finding an 'experimental control', a baseline of comparison for the more important test events to follow. Not without significance, this test event illustrates the effect of the tested bullet on an attacker wearing light or no clothing and being shot without any intervening barriers in the path of the bullet.

The second case was a modification of the FBI test event #4, which calls for: "*Test Four - Wallboard - Two pieces of 1/2 inch standard gypsum board are set 3.5 inches apart. The gelatin block is placed 18 inches behind the rear most piece of gypsum. This test event simulates a typical interior building wall.*" This standard was followed with respect to the incorporation of the two pieces of 0.5" gypsum board offset at a magnitude of 3.5", mounted on a sturdy frame.

Deviation from the standard was realized by not utilizing the FBI standard 'light clothing' on the block and reducing the distance of offset of the block from 18" to a 1" offset. Additionally, the muzzle of the firearm was placed at a distance of 1' from the strike face of the first piece of gypsum board at the time of firing. These modifications were done in the interest of presenting a 'worst case' scenario for the potential victim of a completely missed shot, standing 1" away from their side of the wall and wearing light or no clothing at the area of the bullet strike.

## Test Results

Cartridge : 9x19mm Luger +P Cor-Bon/Glaser Safety Slug 'Silver' +P (Lot # 20060201)

Firearm : Glock 19 with 4.02" barrel length

Calibration :  $11.6 \pm 0.05$ cm at  $590 \pm 0.500$  ft/sec

Impact velocity (6-shot average) :  $1581 \pm 0.500$  ft/sec

### **Bare gelatin shot**



FIG.1

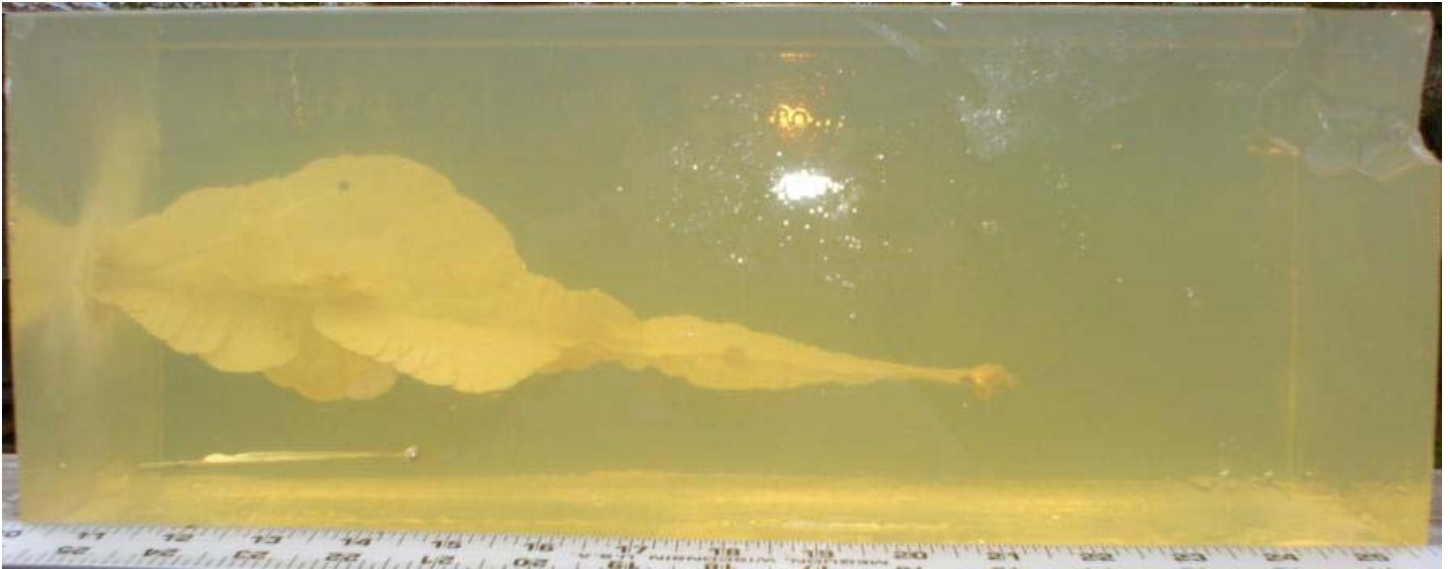
Figure 1 illustrates that the maximum penetration achieved by the deepest penetrating pellet was  $7.8 \pm 0.031''$ , with a maximum dispersion of  $2.8 \pm 0.031''$  inches at  $5.1 \pm 0.031''$  depth.  $76.2 \pm 0.05\text{gr}$  of payload was recovered from the wound track.



**FIG.1A**

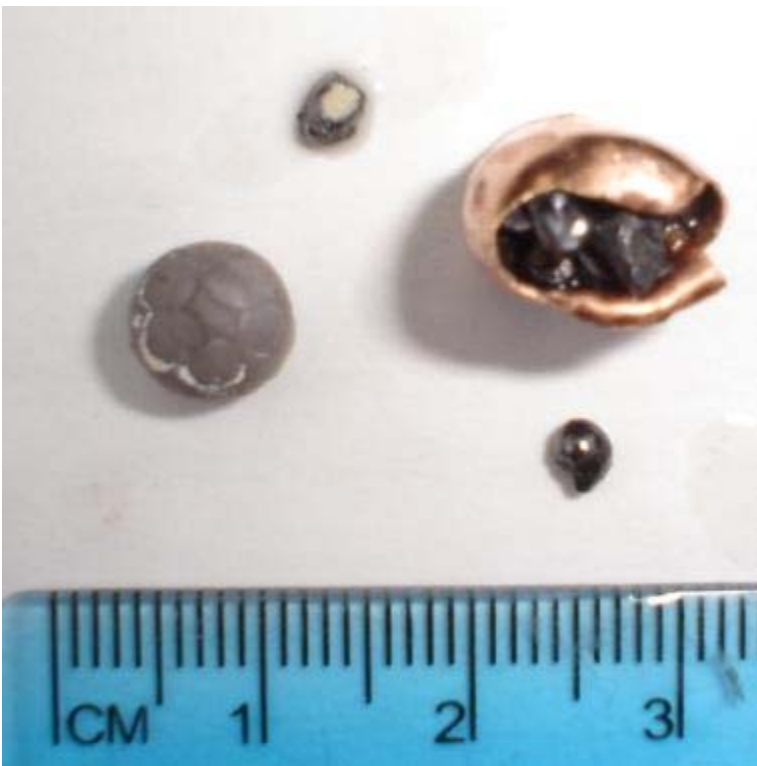
Figure 1A depicts the shot pellets, jacket fragments and 'polymer ball' recovered from the bare gelatin wound track.

## Interior wall shot



**FIG.2**

Figure 2 is an image of the Safety Slug having penetrated the interior wall and into the gelatin block. This particular bullet penetrated to  $11.7 \pm 0.031$ " and exhibited almost no fragmentation. Two pieces of the #6 shot were found in the wound track, the remainder of the payload were retained in the bullets cavity by an apparent deformation of the bullets nose area. The wound track was not injected with dye – the dust from the gypsum board was drawn into the track by the bullets motion, giving it the white hue. Recovered payload weight from this test event was  $77.6 \pm 0.05$ gr. The silver sphere visible adjacent to the wound track is the steel BB used to calibrate the gelatin block.



**FIG.2A**

Figure 2A is the image of the Safety Slug as it was recovered in the gelatin block after first penetrating the interior wall.

### Gypsum board panels



**FIG.3**

Figure 3 (left) illustrates the rear of the first wallboard panel struck by the Safety Slug and the panel on the right illustrates the strike face of the second wallboard panel.

## **Conclusion**

Having evaluated this particular line of Safety Slug against standardized barriers and ballistic media, a few conclusions may be made. First, the penetration of the tested round against a bare gelatin block is wholly inadequate when viewed in light of the FBI minimum penetration depth of 12” in calibrated ballistic gelatin. This is exacerbated by the fact that the tested block was out-of-calibration, in that a steel BB impacting at 590 ft/sec is to penetrate to 8.5cm in a ‘perfect block’. Due to the multiple sub-projectiles of the tested bullets, a correction procedure was not undertaken to determine the penetration depth that this ammunition would achieve in an ideal block. In any case, the penetration would be less in an ideal block, due to the lower-than-standard viscosity of the tested block.

Perhaps the point of greatest interest is the failure of the bullet to reduce penetration when fired through interior walls, as might occur in the event of a complete miss during a defensive shooting event inside a structure – lethality of the round is actually increased by the presence of an intervening interior wall.