

## HERNON® Sealant Firing Tests

March 24th, 2018:

Location: Angeles Rifle Ranges, California

Conditions: 60-65 Degrees, Windy, Intermittent Light Rain



**Test 1: Sealed VS. Unsealed .308 Centerfire Ammunition**

**Weapon:** Remington AAC Model 700 1:10" Twist 20" Heavy Barrel .308 Winchester  
**Instrument:** MagnetoSpeed V3 Chronograph

**Ammunition:** Barnes Match 175 Grain Boat Tail Hollow Point .308 (Expensive Match Ammunition)

**Unsealed:** Average Velocity: 2,568 Feet Per Second, SD: 7.8, Range: 2,558 - 2,591, ES: 18

**HERNON® 76100:** Average Velocity: 2,586 Feet Per Second, SD: 6.6, Range: 2,580 - 2,597, ES: 17

NOTE: Ammunition first and foremost was fully sealed and 100% reliable. No misfires or other malfunctions were experienced. Firing difference most clearly observed was slight increase in apparent recoil of sealed ammunition accompanied by complete elimination of visible muzzle flash... indicating a more complete combustion of powder in the chamber and/or barrel prior to bullet exit and . This latter is a most desired feature of military ammunition and appears also to have made a significant reduction in SD.

**Ammunition:** Fiocchi® Exacta 147 Grain Full Metal Jacket .308 (Inexpensive Military Style Ammunition)  
**Unsealed:** Average Velocity: 2,522 Feet Per Second, SD: 13.4, Range: 2,508 - 2,544, ES: 36

**HERNON® ACCURIZER 1:** Average Velocity: 2,652 Feet Per Second, SD: 17.2, Range: 2,634 - 2,676, ES: 42

NOTE: Same seal and reliability as above. Incredible 130 FPS (>5%) average velocity increase in application of sealant alone and similar elimination of muzzle flash duplicated multiple times.

**Test 2: Sealed VS. Unsealed .223 Remington Ammunition**

**Weapon:** Savage 110 24" Barrel 1:14" Twist .223 Remington  
**Instrument:** MagnetoSpeed V3 Chronograph

**Ammunition:** Remington UMC 45 Grain Jacketed Hollow Point (Inexpensive Varmint Ammunition)

**Unsealed:** Average Velocity: 3,629 Feet Per Second, SD: 52.6, Range: 3,560 - 3,707, ES: 147

**HERNON® ACCURIZER 1:**  
Average Velocity: 3,597 Feet Per Second, SD: 30.7, Range: 3,549 - 3,622, ES: 73

NOTE: Same seal and reliability as above. No significant difference in average velocity, but HUGE difference in Standard Deviation (>32%) and Extreme Spread (>50%) with sealant...

**Test 3: Sealed VS. Unsealed .22LR Remington Golden 40 Grain Hollow Point**

**Weapon:** Savage Mk-II F-SR 16" Barrel 1:16" Twist .22LR  
**Instrument:** MagnetoSpeed V3 Chronograph

**Ammunition:** Remington Golden HP .22LR (Bulk Packaged Carton Variety Sold At Major Retailers)

**Unsealed:** Average Velocity: 1,139 Feet Per Second, SD: 62.4, Range: 1,059 - 1,215, ES: 156

**HERNON® ACCURIZER 1:** (With bullets twisted and gently hand pulled to reveal <0.5mm gap to case):  
Average Velocity Set 1: 1,170 Feet Per Second, SD: 32.1, Range: 1,139 - 1,216, ES: 79  
Average Velocity Set 2: 1,197 Feet Per Second, SD: 48, Range: 1,158 - 1,254, ES: 96

NOTE: Same seal and reliability as above. Significant differences in velocity (30- 60 FPS), but HUGE differences in Standard Deviation (Up To 49%) and Extreme Spread (39 - 49%) with sealant...