



Technical Data Package

40 S&W
165 Grain Tactical HST Hollow Point
Part Number: P40HST1

September 14, 2009

Objective:

The P40HST1 is a 40 S&W caliber cartridge designed for use as a duty and training cartridge for law enforcement personnel.



40 S&W Cartridge and Projectile – Part Number: P40HST1

Ammunition Components:

- **Cartridge Case:** The nickel plated brass cartridge case is constructed of a copper alloy No. 260 (70% Cu, 30% Zn)
- **Projectile:** The hollow point, Tactical HST projectile is a 180 grain, copper jacket / lead core projectile. This engineered projectile provides excellent weight retention and penetration through various barriers.
- **Propellant:** The propellant utilized in this cartridge double based (Nitrocellulose + Nitroglycerine) flattened ball type produced in the United States of America by an ISO 9001:2000 certified supplier. The propellant used in this product is very insensitive to temperature extremes assuring uniform ignition at very low

temperatures. Furthermore, this high energy propellant is specifically formulated with optimum levels of nitrocellulose and nitroglycerine for energy, acid scavenging chemical stabilizers to ensure long stable shelf life and flash suppressants to control excessive secondary muzzle blast.

- **Primer:** The nickel plated primer assembly is part number 100. The primer mix contains basic lead styphnate and it is designed for use at -40 degF to 125 degF.
- **Primer Sealant:** The primer assembly is sealed in the brass cartridge case by an anaerobic sealant
- **Case Mouth Sealant:** The case mouth interior is coated a case waterproofing compound.
- **Cartridge Case Headstamp:** Each loaded cartridge is head stamped with FCC and 40 S&W.

Performance Specifications:

- **Muzzle Velocity:** 1,110 +/- 20 feet per second using a standard, 4.0" SAAMI pressure and velocity barrel
- **Accuracy:** Three, five round groups with a maximum extreme spread of 2.5" at 50 yards, using a standard, SAAMI accuracy barrel
- **Muzzle Energy:** 410 FT-LBS
- **Chamber Pressure:** SAAMI standard piezoelectric maximum average pressure specification is 35,000 psi.
- **Bullet Pull:** Minimum individual specification of 80 lbs.
- **Bullet Push:** Minimum individual specification of 80 lbs.
- **Terminal Performance:**
 - o Bare Gelatin: 10% Ballistic Gelatin - FBI Test Series

- Average penetration: 12.2 inches
 - Average expansion: 0.91 inches
 - Average weight retention: 100%
 - Heavy Clothing: FBI Test Series
 - Average penetration: 12.4 inches
 - Average expansion: 0.78 inches
 - Average weight retention: 100%
 - Wallboard: FBI Test Series
 - Average penetration: 12.7 inches
 - Average expansion: 0.77 inches
 - Average weight retention: 100%
 - Plywood: FBI Test Series
 - Average penetration: 13.1 inches
 - Average expansion: 0.78 inches
 - Average weight retention: 100%
 - Mild Steel: FBI Test Series
 - Average penetration: 19.0 inches
 - Average expansion: 0.45 inches
 - Average weight retention: 99%
 - Automobile Glass: FBI Test Series
 - Average penetration: 13.2 inches
 - Average expansion: 0.62 inches
 - Average weight retention: 75%
- **Penetration:** Projectile will not penetrate NIJ Level II body armor

Quality Control:

- Federal Cartridge currently manufactures ammunition based on ISO 9001 equivalent quality control system
- **Propellant detection:** There is 100% inspection of propellant during loading
- **Visual Inspection:** There is 100% visual inspection of the finished loaded cartridge prior to final packaging
- **Lot Identification:** Each lot of ammunition is assigned a unique identification number to include the day, month and year of manufacture and assembly line on which manufactured

- **Ammunition Dimensional Control:** All components and finished products are manufactured to SAAMI requirements