Tuesday, May 5, 2015

www.teamneverquit.com

Frangible Ammunition for Law Enforcement Training/Duty Use? A Review.

Team Never Quit™ (TNQ) has put out a new line of ammunition to the market. Marcus Luttrell, and his SEAL and other elite operator buddies, as well as many operators have a statement used often in their business - "Train like you fight." This sentiment resonates within the Law Enforcement community as well. With the complexities and sensitivities of the nature of the LE environment, this is more true all the time as the days of Mayberry are all but behind us. On the Law Enforcement side, may officers like to ensure their training rounds are ballistically matched to their duty rounds to ensure the feel and shooting experience, as well as the bullet performance when fired have same point of aim, point of impact.

As the TNQ team evaluated the best way to go about training and self defense/duty rounds, and the ammunition line, many potential projectiles and concepts were tested and the decision was finally made to implement a segment of the line with Frangible projectiles. The TNQ line, has partnered with Sinterfire, Inc. (www.sinterfire.com) for the supporting projectiles for a broad scope of both the training and duty line of ammunition. While the TNQ line also offers several rifle calibers, with their Patriot match level loads, and more traditional bullet types, as well as a pistol offering with a non-frangible Solid Copper Hollow Point, this article will hone in on the swath of the frangible based line of products by TNQ, to provide LEOs some specific information on the concept behind this product line.

Team Never Quit Frangible Training Rounds:

Sinterfire Frangible bullets, and associated powdered metal that makes them up.

To breakdown those pros and cons, it is first important to define the Sinterfire frangible bullet. The Sinterfire bullet is made up of copper and tin powder, compressed in a "sintering" or heating process to form and bond the bullets together. The result is a bullet which is very hard, and looks to the untrained eye much like a traditional full metal jacket, or total metal jacket bullet. When looking closely, you can almost see the compositional difference by a slight color variant and dull appearance to the bullet itself as it is not jacketed with shined copper or plating. The intent of the standard closed nose bullets it to be "frangible" or break up when striking a substance or target harder than itself. Traditionally, this would be AR500 level steel plates for maximum frangibility. Consider taking a sugar cube in a sling shot, and slinging it against the tile on your kitchen floor. It would break down into the smaller sugar fragments that make up the cube as the cube has struck something much harder than itself. This exact picture can be duplicated for a Sinterfire projectile striking an AR500 steel plate. Why is this exciting? There are several reasons:

Tuesday, May 5, 2015

- If you have ever been to the range (indoor or outdoor) and shot steel targets you know it is FUN! Steel targets give the shooter immediate feedback, and often times reaction, unlike a paper target.

Marcus Luttrell and friends firing on steel targets. Silhouette targets have flipper centers, and you can also see the plate rack to the right, which can be used to compete, or just hone your skills. When the bullet strikes a plate on the plate rack, the plate falls back. When all have been knocked down, the rope (seen in the picture) is pulled from behind the shooter to pull them back to ready position.

- Most who have shot steel, know it is much more dynamic and fun than shooting a paper target. What many do not realize is the danger of doing so with traditional FMJ/TMJ ammunition at close range. The copper jacket combined with the lead core is a recipe for ricochet, often throwing jacket fragments right back at the shooter, sometimes causing serious injury. Check out the TNQ promo video to hear Marcus tell a story at the end of how serious this situation can be: https://youtu.be/7aL1VhgjeQE Frangible ammunition is designed to greatly reduce or eliminate the ricochet. When the Sinterfire bullet strikes steel, it breaks down into its original composition of copper and tin powder, falling harmlessly to the ground allowing for very close combat training scenarios with greatly reduced risk of injury. **NOTE:** Proper Personal Protection Equipment (PPE) should ALWAYS be worn when firing ammunition!
- When training, shooting steel targets versus paper or dirt, allows LEOs heightened and competitive situations to be put into play. For example - two shooters can be lined up on the plate rack, one shooting right to left and one shooting left to right, with the first knocking down the center target being the winner. The competitive aspect provides not only greater enjoyment, but increases the stress due to speed and accuracy needed to win! This allows a similar reactive situation to the body as fear would cause, heightening the "stress" thus allowing the shooter to increase overall accuracy, speed, and effectiveness, under pressure in a safe and enjoyable shooting environment. This is precisely why the Sinterfire projectile has been used for many years at the Federal Law Enforcement Training Center (FLETC) to allow more dynamic shooting situations for LEOs.
- The frangible bullets contain no lead. When paired with a lead free primer, the entire round system can be lead free. This is often a concern at indoor LE ranges. It also is a benefit at the shooter position where much of the lead exposure comes from the primer smoke. A lead free system provides safety benefits for airborne lead.

Now, let's discuss standard Sinterfire frangible bullet performance against other mediums. There are many misperceptions in this understanding. Many shooters hear the world frangible and believe the bullet will actually turn to dust or fragments when striking anything. There are even countries who currently ban frangible ammunition due to this belief, believing if a criminal ever shot someone with a frangible round, it would be completely untraceable. This is simply not the case. We will take a couple different mediums below to highlight what one could expect when shooting this frangible bullet at various targets:

Tuesday, May 5, 2015

- Hardened AR500 steel: Bullet will fragment into pieces smaller than 5% of bullet weight, which usually equates to copper and tin dust. Leaves minimal marks on steel plates providing greater longevity of the target.
- Light/Mild Steel: Bullet will still fragment but will leave significant mark on the steel.
- Sheet metal: Bullet will begin to fragment but will penetrate the metal and continue down range.
- Soft targets: Bullet may break if it hits something hard (i.e. bone), but will predominantly perform the same as a FMJ - pass right through only poking a hole the same diameter of the bullet. In the above scenario of a criminal shooting someone - the round would likely pass through the person being shot and end up somewhere down range. If say, it lodged into a wall where it could be recovered, due to the softness of the copper and makeup of the bullet, the rifling marks on the bullets for traceability to a firearm would actually be more prominent than a standard FMJ or even an expanding bullet.

The Sinterfire bullet has been around for 19+ years, and has been the predominant bullet being used by Law Enforcement around the globe for their steel training. The Federal Law Enforcement Training Center (FLETC) puts thousands of officers through their school each year, and solely uses the Sinterfire bullet in their ammunition for training. Although a bit more expensive than a traditional FMJ round due to the volume of copper in the bullet, this round provides much greater bang for the buck when considering the increased training experience combined with the increased safety benefits of the round! In summary, the frangible training projectile is designed specifically for dynamic range training on steel targets, geared toward providing the shooter with a much more enjoyable experience, while providing an increased number of skills to hone versus traditional ammo and range experiences. As a positive by-product, it is also lead free, and MUCH safer to shoot on steel targets! This provides a real opportunity to "Train like you Fight."

Team Never Quit Frangible Hollow Point Rounds:

Photo of the a TNQ Frang HP round.


Gel block close up shot of TNQ 9mm Frang HP.

To ramp up the "Train like you Fight" mantra, TNQ also implemented into the line, a new Sinterfire technology, the Frangible Hollow Point bullet. Utilizing a very similar base product to the training round, and applying some science to the hollow point in the front end, Sinterfire in conjunction with TNQ has generated a lethal combination! This product truly provides that desire of operators to have a ballistically matched training and operational product as this product sits in the cross-over category and can be used for both training and duty/self defense use, giving the shooter exact ballistic match, felt recoil, and proven performance on every shot. For the more serious shooter, this product answers the call! Some of the added benefits are outlined below:

- While this bullet performs exactly the same as the training projectile on hardened steel targets, the big differences come against other mediums and soft targets. The Frangible HP round, has been tested for overall performance against the FBI test protocol testing, the baseline for Law

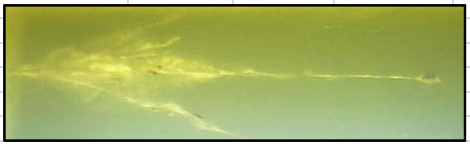
Tuesday, May 5, 2015

Enforcement and Operational Hollow Points, and performs well in each meduim, save one. The bullet performs successfully against calibrated bare gel, light clothing, heavy clothing, wall board (sheetrock), and well again light sheet metal before entering a soft target. It doesn't perform well against auto-glass being the final and most difficult medium. Due to the hardness of auto glass, the bullet performs as it is supposed to which is to break up on hard surfaces. In comparison, many duty hollow points which have been fielded in the past for Law Enforcement also have immense difficulty with the same auto glass test, due to the hardness and composition of the glass. Jacketed hollow points often separate, or break apart on the surface without doing any fatal damage. Bonded bullets are still the way to go against auto glass if that is a concern. In our civilian self defense use scenarios, auto glass is of little concern. To pass a FBI protocol test, the bullet must ideally penetrate the medium, and continue to provide 12-18" penetration. Test results below:

Ballistic Test Results

Caliber	Weight	Type	10% Ballistic Ordinance Gelatin	Barrel Length	Velocity	Bullet Penetration[1]	Fragment Penetration[2]	Fragment Diameter[3]	Retained Weight[4]
9mm Luger	100gr.	HP	Bare Gelatin	5.0 inches	1,250 fps	15.00 inches	6.00 inches	3.00 inches	51.0 grains
9mm Luger	100gr.	HP	Denim, T-Shirt, Flannel	5.0 inches	1,250 fps	15.25 inches	5.25 inches	4.00 inches	52.5 grains
9mm Luger	100gr.	HP	Drywall, Light Clothing	5.0 inches	1,250 fps	12.25 inches	6.00 inches	3.50 inches	48.5 grains
9mm Luger	100gr.	HP	2 - 20ga. Steel, Light Clothing	5.0 inches	1,250 fps	8.00 inches	3.00 inches	3.75 inches	40.5 grains
.40 S&W	125gr.	HP	Bare Gelatin	5.0 inches	1,300 fps	12.75 inches	5.00 inches	3.00 inches	53.5 grains
.40 S&W	125gr.	HP	Denim, T-Shirt, Flannel	5.0 inches	1,300 fps	13.50 inches	5.00 inches	5.00 inches	56.0 grains
.40 S&W	125gr.	HP	Drywall, Light Clothing	5.0 inches	1,300 fps	14.00 inches	5.25 inches	4.25 inches	58.5 grains
.40 S&W	125gr.	HP	3 - 20ga. Steel, Light Clothing	5.0 inches	1,300 fps	7.25 inches	3.50 inches	3.75 inches	44.0 grains
.45 AUTO	155gr.	HP	Bare Gelatin	5.0 inches	1,200 fps	14.00 inches	5.75 inches	5.00 inches	78.0 grains
.45 AUTO	155gr.	HP	Denim, T-Shirt, Flannel	5.0 inches	1,200 fps	13.00 inches	6.00 inches	6.00 inches	75.5 grains
.45 AUTO	155gr.	HP	Drywall, Light Clothing	5.0 inches	1,200 fps	13.50 inches	4.00 inches	3.00 inches	96.0 grains
.45 AUTO	155gr.	HP	4 - 20ga. Steel, Light Clothing	5.0 inches	1,200 fps	7.00 inches	3.50 inches	4.00 inches	52.5 grains

1 - Average total penetration of remaining intact bullet base.
2 - Average total penetration of fragmented hollow point particles.
3 - Average diameter of dispersion of fragmented hollow point particles.
4 - Average retained weight of remaining intact bullet base.



10% Ballistic Ordinance Gelatin - 5.75 inches fragment Penetration, 14.00 inches base penetration
.45 Auto 155 gr HP - Special Duty™ Hollow Point - Impacting Ballistic Gelatin

- As seen in the gel block above, which is calibrated ballistic gel, one can see the basics of what the bullet does upon striking a soft target. As can be seen, the bullet begins an immediate and high action fragmentation down to the depth of the hollow point doing significant permanent damage upon entry. The base of the bullet, continues to penetrate. In this particular situation the bullet base is sitting near the end of the block and is roughly half of the overall grain weight of the initial projectile.
- When faced with a self defense or operational situation, very rarely is someone shot who is naked, making testing against light and heavy clothing important. The wall board test is to simulate shooting in a home, and the light metal is to simulate a vehicle shooting. In all cases, the bullet will begin to break up upon striking the medium and still provide a penetration depth associated with giving the best chance at stopping a threat.
- Today, there are some variable threats facing our LEOs which open another discussion about the capabilities and performance of this bullet in an operations situation. In an active shooting situation where rounds may be flying and there are hostages, or civilians in the line of fire, the

frangible HP round provides much less risk of collateral damage to innocent bystanders as the round will begin to dump energy and break apart when striking a floor or wall, etc, thus still providing the benefit of reduced ricochet, especially when compared with the majority of fielded duty HPs. While putting rounds downrange never guarantees the safety by standers, this round at least provides a reduced safety risk.

- Price of this ammunition is MUCH cheaper than traditional bonded, jacketed, or solid copper hollow points at nearly half the price of all other high end HP rounds. Due to this, LE agencies could consider this a cross over round when cost averaged, to provide both their training and duty needs by having one round that provides all needs. If using this round for both training and duty situations, there is no risk of carrying the wrong ammo, the point of aim - point of impact are exactly the same every time, and the felt recoil is always the same. From a "Train Like You Fight" attitude, this round may provide LE agencies the best value option.
- The bullet is lead free and is a great potential option for indoor ranges, or states where this is an issue.

In summary, this round provides an interesting consideration for LEOs and Operational agencies. The round, at its amazing price point, gives serious shooters whether they be law enforcement, military, or civilians the option to carry this round in their carry weapon all the time and utilize the round for both training situations as well as self defense or operations. There is a clear reason why Team Never Quit chose these bullets to be part of their fantastic and growing lineup. Marcus Luttrell and Team Never Quit, want everyone who carries a weapon to be well trained and versed in the use of their firearm. Given an elite military background, it is no surprise they want to put out a product that incentivizes serious shooters to be the best they can be at all times. Get out there and try some of this ammunition today. It is readily available in Cabela's, Lucky Gunner, and shortly through Brownell's, with the list growing daily. LE Agencies who want to test and consider this ammunition for their training and duty needs, can get setup by contacting sales@snakeriversshootingproducts.com. Also, see www.teamneverquit.com for more info!

About Team Never Quit, LLC

"Team Never Quit focuses on courage, perseverance, faith and hope. Team members personify strength of character, endurance and the resonating message of overcoming challenges. Team Never Quit is about succeeding even when the odds are insurmountable. Never stop, never give up, keep on fighting even as life throws you challenges, Team Never Quit."

About Marcus Luttrell and Operation Redwing

Marcus Luttrell is the only surviving SEAL member from Operation Redwing. Luttrell's No. 1 *New York Times* best-seller *Lone Survivor* tells the harrowing story of four Navy SEALs who journeyed into the mountainous border of Afghanistan and Pakistan. His account was portrayed by Mark Wahlberg in the 2013 major motion picture, *Lone Survivor*.

Media Contact: Jessica Stoner at jessica@marcusluttrell.com