

Frequently Asked Questions



"The bullet with the 'ding' cast in!"

What is the "ding" that is cast in?

The "DING" we intend to cast into every bullet is the sound of it hitting the target you are aiming at. Because we believe our bullets will shoot consistently and more accurately we have no doubt you, and more importantly the scorers, will hear more dings after you shoot. Realistically though, since the bullets are cast from a very soft alloy (see FAQ on 'Obturation') the dings you see on the bullet surface are the result of simple bumping and tapping during the casting, sorting, sizing and packaging process. These do not in any way detract from the effectiveness or accuracy of the bullet. You will notice the bullets come in a vacuum formed bag to minimize more dinging in shipping and to keep the softer lubricant in the grooves, where it belongs. And finally, the dings are very consistent with the authenticity we are trying to match in the old bullets. Have you ever seen a perfectly surfaced antique bullet?

We have been experimenting with the process and handling of these softer bullets for nearly a year and have discovered that there is hardly any way to commercially cast and process them without some "dings". Of course we could individually hand pack them into specially designed plastic or Styrofoam cradles, then seal and box them, but the cost would be so great we couldn't afford to shoot them ourselves, much less find a buyer in the market. We just hope you appreciate and enjoy the accuracy, authenticity, safety and economy the bullet provides, even with the 'silent' dings.

Will I need to change my loading procedure?

Not if you currently provide a distinctive flare prior to seating your bullets. If you notice any lead shavings you will need to reset your flaring die to provide a more open 'mouth' to allow the bullet to seat to its proper depth before crimping. We also strongly suggest using a separate step to crimp the bullet. Remember, these are plain-based bullets designed for accuracy and dependability, not like those with a bevel designed for ease of loading. There are some instructions in each box of bullets that we recommend you read before starting to load these softer bullets.

Why does the lube come out of the groove when I run my thumbnail into it?

Very simply, because you're digging it out! It is a softer lube so it will soften the fouling left by blackpowder. Therefore, it is easily 'dug out' of the groove as well. It is also softer so it will coat the bore as it goes down the barrel so the fouling won't stick as badly. Notice I said 'as badly'. Blackpowder, and any powder for that matter, will leave a residue behind. The idea behind bullet lube is to lube the bullet on its flight and to coat the barrel so fouling won't stick, and the lead will glide, instead of gild, as it is pressured against the steel of the bore. The lube, to meet these demands, must be relatively balanced to match your bore size and condition, the alloy of the lead and the pressure/velocity of the load you are shooting. Our lube is designed to work with our lead alloy in loads for standard and low velocity blackpowder and smokeless components. (It will shoot well in some hearty "standard" loadings.)

You're not supposed to gum up your thumbnail, or any other nail for that matter, with the lube. It is supposed to be of sufficient quantity and consistency and appropriate chemical formula that it is used up in the bore, not your nail. A good easy test to see if the lube is working, other than noticeably minimizing fouling, is to wipe your finger across the end of the muzzle of your weapon after repeated firings and see if there is a slight, or noticeable, "smear" of lube at the crown. Here you CAN dig your thumbnail into the goo. There should be a lube residue present. Another test you might try is if you can recover one of your bullets from a soft berm see how much lube is left in the groove. If there is a lot left you might ask your self "what lubed the bore?"

How do I determine the best load with these bullets?

First of all you will need to determine how “hot” a load you wish to shoot. These bullets will work remarkably well with almost any standard load, but are designed to also work exceptionally well with lower pressure/velocity loads. We suggest reviewing at least two loading manuals and selecting a powder, primer and bullet weight combination that will suit your expectations.

If you shoot the same load in both pistols and your rifle, load twenty-two (22) rounds of the selected base load, twenty-two (22) with a powder charge about 10% less and another twenty-two (22) rounds with about 15% less powder. Take these test loads to a safe shooting range and, using a rest for your wrists or forearms, (never rest the barrel on the sandbags) set up several targets at 10 yards for the pistols and 20 yards for the rifle and shoot six from each pistol and ten from your rifle (or more, which is better) for grouping. At this point don't worry too much about point of impact, just find the most accurate load that suits your needs for down range energy and delivers the desired recoil. Keep trying different powder(s) and primer combinations until a load meets your expectations.

Why would I need / want to "slug" my bore (cylinder)? (want and cylinder added by the editor)

Most recently it has come very clearly to our attention that a lot of folks are ordering bullets way larger than they need. Most of these folks have been shooting a hard cast/hard lubed bullet and in order to get it to shoot accurately at lower velocities they have had to get a bullet that is measurably over bore size. The accuracy in this case is a result of “swaging” the bullet down the bore. With a harder bullet this can cause increased pressure and lead ‘filming’ in the bore, and certainly increases recoil. With these softer bullets and lube the bullet need only be at, or plus/minus .001 of, bore and cylinder diameter to optimally perform. The softer bullet obturates to seal the bore and cylinder mouth, consequently it fits without undo wall pressure and resultant heat and wear.

Notice we added “cylinder” to the question. The bullet must also match the cylinder mouth as well. A cylinder too small is detrimental for later proper bullet to bore seal, a cylinder mouth too larger leads to leading at the cone and distortion of the bullet. It does reduce recoil, but plays havoc on ultimate accuracy (see FAQ #11).

To really enjoy your weapons with the best possible performance and accuracy it is essential to have a proper fitting bullet, thus slugging the bore and matching the cylinder to that dimension is pretty essential (see FAQ #6).

A recent case in point is the 32 H&R in the new Rugers. A customer ordered our .313 115 grain bullet and wasn't please to see any significant improvement. After slugging the bore we discovered the bore was a really nice tight .310 to .311. The cylinder mouths were at .310 to .312. By changing to our .311 bullet he finally achieved the accuracy, performance and service he hoped to enjoy. Subsequent testing on other 32 H&R Rugers suggested the same condition. We have even discovered that some of the Ruger 45LC prefer a bullet at .450! But, most of the new Marlins and Winchesters do still prefer the prescribed standard bores. The bottom line; slug your bore and get the proper sized bullet.

How do I "slug" my bore to get a proper measurement so I can order the right bullets?

There are several companies that provide a variety of both chamber and bore casting kits. They range from heat and pour to merely driving a soft lead “plug” down the barrel. These work great, especially if you are trying to determine the exact bore measurement for a custom bullet mold for precise fit for long range accuracy. However, for applications like Cowboy Action shooting that level of precision isn't really required.

My technique for slugging the bore of a new gun is to find any soft lead bullet (like a DCB product) and carefully drive it down the bore. In some cases the bullet will be a bit short so careful treatment is necessary to end up with enough good bore image surface to take a measurement with either a micrometer or dial/digital indicator calipers. To drive a slug, first remove the cylinder in a pistol or open the bolt in a rifle. Then stand the pistol between soft jaws in a vise (rifle butt on a padded floor) and, with a plastic mallet, tap the selected bullet into the muzzle. This does NOT take a King Kong mallet swing! After the bullet is flush with the muzzle, I take a brass drift punch near bore diameter and continue tapping it until the punch shoulder is near the muzzle crown. I next use a heavy solid brass rod to finish the drift to the breach end. For rifles I use a brass shotgun cleaning rod that has a brass patch jag (with pointed tip ground off) and try to tap with the mallet to keep the slug moving smoothly all the way through to the chamber. (I have occasionally started a slug and with one single swish pushed the bullet all the way through. You know you have an oversized bore right off when this happens). CAUTION, I suggest marking the final brass rod so you do NOT have a final mallet swing that drives the slug out of the breach, against the bolt or standing breach and off somewhere across the bench and on to the floor. This may cause a deformed slug that will not give correct measurements.

Once you have this bore measurement for all of the guns that will shoot that caliber bullet, you will need to determine which sizing will suit them all. I am assuming none of the bores will be exactly identical. If they are you should be in heaven! Anyway, from these measurements it is simply a decision as to which size will accommodate you for the accuracy you desire. For me, if

given a variable, I will get a bullet that is at or oversize for the pistols bore (but fit the cylinder throat) and compromise in the rifle, which is far more forgiving if there is a significant difference, but two different size bullets.

If you do not have a soft enough bullet you can always go to www.cowboybullets.com and order one of our "Sample Packs". These come in any caliber and weight you choose and are packed either 55 or 105 to the pack. Use one or three to slug the bore(s) and use the others to see how they shoot.

Why aren't I getting the accuracy my partner is getting? *These bullets don't shoot any better than my older hard cast bullets.*

It is probably the same reason that any revolver doesn't shoot well, things just aren't lining up. Specifically, the cylinder throat is either too small or too large to match the barrel bore, the forcing cone isn't properly cut, the cylinder to barrel timing isn't correct and/or the barrel bore isn't matched to the bullet and cylinder throat.

We suggest a four-step process and checking the following first, and easiest. One, slug the bore. Take one of the soft DC bullets and carefully drive it down the barrel bore with a brass drift that is very close to bore diameter. Measure the bore (the maximum diameter). As a matter of record, standard bore diameters are .312" for 32-20's; .358" for 38/357's; .401" for 38-40's, .427" to .429" for 44 specials and magnums; and .452" for 45Colts. Yours will probably vary from these figures. But now that you have a good bore measurement that will determine the diameter of the bullet you will need. Past practice and testing indicates that these soft bullets with a nominal (your bore measurement) to plus .002" or minus .001" should shoot fine in your weapon. Ideally, it is best to have a bullet .001" over bore diameter.

Now, step two, and this is pretty critical! Take a bullet you have selected to fit your barrel bore and see if it will slide, or push, through your pistol cylinder throat. You can also use a good pair of dial indicator calipers or an inside micrometer, and measure the throat. The bullet must go through the throat at best easily, or with a slight push in order to accurately mate with the bore. This measurement/fit must be at bore diameter or plus .0015" to expect any degree of precision accuracy.

If your cylinders do not meet these measurements or fit, and they are too tight, take the weapon to a gunsmith or armorer and have them reamed or honed to the desired dimension. If the throat fit is too large, send the gun back, or get a barrel with an over-sized bore.

Step three is to visually inspect the forcing cone fit to determine if it is at the proper angle and depth. There are different angles prescribed by different manufacturers, but the depth must be deep enough to provide complete "leade" onto the rifling in the barrel. Improper depth results in lead shaving in the forcing cone, a distressed bullet and inconsistent accuracy. If in doubt, have your forcing cone(s) at least dressed to eliminate this variable.

And, finally, step four. Is the cylinder within proper tolerances for throat to bore timing? You will have to either get out the book or take them to a gunsmith or armorer to have this tested and repaired. Lately, with the new machining processes, this has not been a critical problem and proper cylinder throat fit, forcing cone angle and depth will compensate for most of the variation.

For your rifle use the same slugging procedure, push a bullet down the bore and get a reading. Rifles are less sensitive to fit and with the closed chamber and pressure effect of combustion these bullets will either swage down, or obturate up, plus or minus .002" from bore diameter.

Why am I getting leading around my forcing cone?

There are two quick reasons for leading around the barrel throat. The first is an improper forcing cone angle and/or depth. The second is improper cylinder throat to bullet fit. Inspect your forcing cone to be certain it is to specifications and done properly, if it is correct, then check the bullet fit to cylinder throat. Too large a throat will allow hot gases to burn around the bullet as it spans the gap and melt lead onto the barrel face and forcing cone. A third option is that you are shooting too large a bullet through an over sized cylinder.

See also: [Why aren't I getting the accuracy my partner is getting?](#)

I'm getting very accurate groups, but not at point of aim. What's wrong?

Getting good groups means you have a well-tuned weapon. The bullet to bore fit is good, the cylinder fit and forcing cone must be to proper specifications. But this is not really within the domain of our expertise, more a weapons manufacturer problem. However, there are basically only a few things to suggest here. Did it shoot to point of aim with your old load and bullet? Is the barrel bent? Do you have a pair of the same pistols, and does one shoot to point of aim? Is the barrel completely screwed in so the front sight is centered and straight down centerline of the barrel? Has the barrel crown been trued? Are the grips the same for both guns? Are the grips properly fitted for your hand size? Does it shot to point of aim from a rest, but not free-handed?

As we said, this is not within our real realm of expertise, but we hope the questions may have led you to do some experimenting and if necessary to a gunsmith or armorer. Good luck, and when you get a good answer, let me know. I have two pistols I really like but one of each set doesn't shoot to point of aim either. At least with my loads I know where to aim all the time to compensate.

What is a quick fix for minor leading?

Regardless of what any one tells you, there will be leading in the bore and forcing cone whenever you shoot ANY lead bullet. Leading is minimized by using the proper bullet size and lube combination for the loads and applications of your weapons. Obviously, a regular cleaning with any lead remover solvent is in order for proper cleaning. However, occasionally it isn't outside the realm of possibility for us to fire two or three copper jacketed bullets through each weapon to "clear" the bore.

The best "fix" is to properly clean and seal the bore before any shooting goes downrange. Any variety of available bore preservatives/sealers will work. After that, clean it regularly and keep it properly oiled.

Why do you think your bullet is better?

Better! Better, yes we think our bullet is better. But, better for what?

Our bullets are better in any standard and low pressure/velocity revolver and rifle applications than the harder bevel based bullets on the market. They are the best approximations of original bullet design, weight and alloy that were more than accurate and effective way back then. They obturate and lube completely to maximize accuracy and minimize fouling in both the barrel and forcing cones. They are better for safety considerations on the close quarter ranges presently experienced at most cowboy shoots. The softer alloy just doesn't splatter and ricochet near as badly as harder bullets, (compare a marshmallow to a ball bearing bouncing off your kitchen wall). Better, because we are using only the latest technology and digital controlled manufacturing and quality control equipment available today to produce the bullet. Better, because after over thirty-five years of shooting cast bullets we finally put over three years of intensive research, testing and development into the idea of this kind of bullet and couldn't find it anywhere else, so we started the business to make them better.

Better, we think so. But only for the applications we recommend. We do NOT recommend them for 44 Magnum hunting loads (although it might be interesting to try them), or your 454 Casull for 1,000 yards match shooting. We do recommend them for any load a sensible shooter would develop for target, cowboy action and plinking or practice.

Why do your bullets come in a "sandwich bag"?

Actually, it's a vacuum seal bag. And, we put them in the bags and vacuum seal them to minimize movement that can cause any minor blemishes, dings or dents on the bullet during shipping. It also keeps the lube in the grooves, and not smashed into the other bullets like loose packed product. Please do NOT try to reuse the bag for real sandwiches.

What is "obturation" and why shoot a softer (flat-based) bullet?

("flat-based" added by the editor) *(This will be bit complex, so bear with me... editor.)*

Obturation, according to the "The American Heritage Dictionary", Second College Edition, it means; "to close or obstruct". In the case of bullet performance obturation is translated to mean the ability to 'bump up, swell, expand or swage' into the bore to seal the gases produced during ignition and combustion or explosion in the firing chamber. For a rifle this basically means the chamber, which is protected by the cartridge case, and the expectation is that the 'closure/obstruction' material is malleable enough to maintain the 'obturation' all the way to the muzzle.

In a revolver, the closure/obturation is a necessary obstruction to first seal the gases while the bullet exits the case mouth then through the cylinder throat. At this point the obturation (bumping up, swelling, expanding) has reached the diameter of the cylinder throat and is sealing all the gas. When the bullet moves across the gap between the cylinder and the barrel the bullet is throat diameter and does not expand measurably during this period. However, upon entering the forcing cone and barrel proper, the front of the bullet is slowed down from friction in the bore and the base, still under pressure from the pressure and gases, begins to expand some more until it is completely encased by the bore, or that part of the forcing cone which matches the diameter of the bullet at that time. At this point in the bullets flight down the bore proper 'obturation' can only be achieved by having the proper pressure acting on the proper alloy (hardness) of the bullet. It is this continued compression of the base of the bullet that starts the squeezing process that forces the lube from the groove to lubricate the bore to minimize friction now that the bullet has obturated to form the proper seal.

There are several sources who have conducted far deeper research into this matter than we have. But the consensus appears to bear out that the correct pressure to fully obturate a bullet to the bore reads like this; "...the approximate chamber pressure needed to fully obturate a bullet is a factor of 1,422 times the Brinell hardness (BHN) of the projectile..." For example, a bullet of 19 BHN would require a chamber pressure of 27,018 pounds per square inch (psi) (note that this reading is in psi,

NOT CUP, Copper Units of Pressure, as are readings in most loading manuals representing chamber pressures). The BHN for our bullets is in the area of 6-7, which, if using the same formula, would require only 13,509 psi to fully obturate, or seal the chamber or cylinder and bore.

Most cowboy action and practice/plinking loads only develop the equivalent of about 15,000 to 19,000 cup, so you can see what relative level of obturation you are achieving by dividing the indicated chamber pressure of you current load by 1422, then examining the BHN of your bullet to see how well your loads is working, or sealing.

Any loss of seal due to inadequate or incomplete obturation will absolutely result in projectile deformation and, in the case of any lead alloy, erosion of the face absorbing the effects of the pressure, the base of the bullet. In the case of a bullet from a cartridge the base is not only subjected to the pressure of the expanding gases but also the heat generated by the chemicals producing the pressure (remember, lead melts near 500 degrees F). This combination of pressure and heat (pressure is a positive, heat is a negative for us here) will deform a bullet base. With the best of conditions all the deformity will be towards the equal distribution of base expansion so proper seal will occur. If we only had to deal with pressure either a plain base or bevel base bullet would probably work equally well. Although we are of the mind that even just pressure on a flat-based will seal more concentrically than any other design.

Now, why did we add “flat-based” to your question? Knowing what we do from the treatise above and continuing with the addition of the heat variable, which is present during the firing process, lets examine what happens as a bullet from a revolver crosses the gap between the cylinder and the barrel. First of all the maximum pressure in a revolver is reached at this point. From here on the cylinder/barrel gap will continue to bleed off from maximum pressure until the projectile exits the muzzle. While there is maximum pressure there is also maximum heat generated on the base of the bullet. If it is a plain-base bullet the heat and pressure are evenly dissipated and as the base clears the cylinder throat both expand at perpendicular angles to the flat base and exit through the gap. Some lead is melted but since there is more pressure being exerted down the axis of the bore, it remains mostly intact on the base. (Picture a blowtorch held near the end of a soup can.) With a bevel base bullet the peak pressure and heat are not only impacting the flat portion of the base but also escaping around the edge of the flat of the base across the bevel and continues to do so until the bullet is completely encased in the barrel. (Picture, for exaggeration, a blowtorch held at the pointed end of a cone.) This is actually eroding alloy from the bevel portion and can be seen as build up in the forcing cone and on the frame top strap. Obviously this erosion adds to leading and reduced obturation. Some weapons with unmatched cylinder/bore tolerances even leave lead residue on the cylinder pin and bottom of the frame. Some harder alloys relieve this effect but do not eliminate it. Since there is no cylinder/barrel gap in autoloaders, this phenomenon is minimized. In a revolver, it has critical impact on accuracy, fouling and durability.

Even with soft alloy plain-base bullets, if the cylinder to bore measurements aren't consistent and within tolerances, erosion and base deformation will be sufficient to reduce accuracy and contribute to leading. (See FAQ “[Why aren't I getting the accuracy....](#)”).

Why are your bullets so pricey?

Actually, our pricing is about right in the middle of the price range compared to other bullet providers. The costs are determined by the cost of alloy, which in our case is a certified 20:1 alloy, and the cost of production and packaging, plus overhead. With a plain-base bullet the casting process requires a longer prep time and slower production rate to fill the mold cavities than with bevel-based bullets. Also, we need to add in the time for accurate quality control inspection and the extra step for sealing the bullets for packaging. All in all, it is a compliment to the old adage that “you get what you pay for”.

Personally, it always intrigues me that folks are so cheap and little concerned about the most critical measure of success in shooting or hunting. That bullet is the only thing that does anything that counts! I have seen and heard of people who think nothing of spending over \$10,000 for an African hunt only to go to "Discount Joe's" for a box or two of the cheapest ammunition they can find! In Cowboy Action shooting, you have at least \$800 invested in two pistols, \$600 in a good rifle, \$80 for period pants, \$200 for a unique hat, \$198 for a fair pair of boots, \$30 for suspenders, \$35 for that really neat shirt, \$150 in a gun cart, \$225 for that special holster rig, \$150 for the so-so duster, and at least another \$300 for tuning, loading equipment and accessories. Now, after nearly \$2800, you want to jeopardize your score (accuracy) by worrying and fussing about 1.4 cents per round more on the high side to 2 cents lower than custom soft bullets for your ammunition? I am surprised at you!

If you research other bullet companies and especially notice the “custom casters” pricing, you will notice we are providing what is considered a custom bullet at a reasonable production price. We really believe we are offering the bullets at a more than reasonable price and hope we can keep the prices at their present rate considering the costs for materials, processing and the latest in digital technology and up to date equipment.

How do I 'slug' my bore to get a proper measurement so I can order the right bullets?

There are several companies that provide a variety of both chamber and bore casting kits. They range from heat and pour to merely driving a soft lead "plug" down the barrel. These work great, especially if you are trying to determine the exact bore measurement for a custom bullet mold for precise fit for long range accuracy. However, for applications like Cowboy Action shooting that level of precision isn't really required.

My technique for slugging the bore of a new gun is to find any soft lead bullet (like a DCB product) and carefully drive it down the bore. In some cases the bullet will be a bit short so careful treatment is necessary to end up with enough good bore image surface to take a measurement with either a micrometer or dial/digital indicator calipers. To drive a slug, first remove the cylinder in a pistol or open the bolt in a rifle. Then stand the pistol between soft jaws in a vise (rifle butt on a padded floor) and, with a plastic mallet, tap the selected bullet into the muzzle. This does NOT take a King Kong mallet swing! After the bullet is flush with the muzzle, I take a brass drift punch near bore diameter and continue tapping it until the punch shoulder is near the muzzle crown. I next use a heavy solid brass rod to finish the drift to the breach end. For rifles I use a brass shotgun cleaning rod that has a brass patch jag (with pointed tip ground off) and try to tap with the mallet to keep the slug moving smoothly all the way through to the chamber. (I have occasionally started a slug and with one single swish pushed the bullet all the way through. You know you have an oversized bore right off when this happens). CAUTION, I suggest marking the final brass rod so you do NOT have a final mallet swing that drives the slug out of the breach, against the bolt or standing breach and off somewhere across the bench and on to the floor. This may cause a deformed slug that will not give correct measurements.

Once you have this bore measurement for all of the guns that will shoot that caliber bullet, you will need to determine which sizing will suit them all. I am assuming none of the bores will be exactly identical. If they are you should be in heaven! Anyway, from these measurements it is simply a decision as to which size will accommodate you for the accuracy you desire. For me, if given a variable, I will get a bullet that is at or oversize for the pistols bore (but fit the cylinder throat) and compromise in the rifle, which is far more forgiving. If there is a significant difference, buy two different size bullets.

If you do not have a soft enough bullet you can always go to www.cowboybullets.com and order one of our "Sample Packs". These come in any caliber and weight you choose and are packed 105 to the pack. Use one or three to slug the bore(s) and use the others to see how they shoot.

Will your 125 grain 38 Caliber bullets feed properly in my 1873?

Very good question, and yes they will! We had the molds cut specially to cover that condition.

We are well ware of the problems with the 38 caliber, 125 grain bullets and feeding problems. Our 125 grain and 158 grain bullets molds are cut with the crimp groove at the right dimension to provide an overall length compatible to feed in even the orneriest 1873 Winchester. In addition, we have tested it for feeding in Marlins, early and late from converted 1889's to the new 1894's, the real and clone 1873, 1892 and 1894 Winchesters. We have not had a feeding malfunction.

Not only do our 38 caliber 125 grain bullets feed properly, all of our bullets have been field tested by the staff for feeding, accuracy and safety. We have tested the bullets in everything from original 1873's to the latest Marlin's and several of the reproduction Winchester style rifles. One advantage we have is the entire staff and support team are shooters. And we like nothing more than to call a recess and go "field testing". We shoot everything from 32-20 blackpowder to the 45 Colt's in some healthy loadings. I can tell you that our field tests include all the different variables in weapons and shooting styles. If it doesn't work for any of us, we won't sell it.

How does your bullet compare to the "Big Lube" bullets that they talk about on the \$\$\$ wire?

In a word, "Favorably."

The advantage of the design of the big-lube bullets is that there is room for significantly more lube than is necessary for Black Powder CAS loads. The disadvantage is that all the lube is not used in the bore and it can still come off as the bullet goes down range, which can result in decreased accuracy over long ranges. Additionally, the big groove once empty, if it completely empties, does not contribute to sustained ballistic coefficient and stabilization over long range. From a pistol at CAS ranges, there would probably not be any distinction though.

Let's take a minute and understand what lube in/on a cast lead bullet is for. First of all there is absolutely no need to "oil" or otherwise 'lubricate' the bullet. Load some without any lube and shoot them. The bullet will go down range as well as a lubed bullet. The primary reason for "lube" is to reduce leading. The best lube formulas are the ones that produce an "anti-tinning" surface in the bore so the hot lead at the base of the bullet doesn't adhere to the ferrous metal.

The antithesis of this effect is like a plumber soldering copper piping. They add flux to the areas to be joined, then heat the metal and flow the solder (normally 50/50; tin/lead ratio) and fuse the joint. Cast lead bullet lube is to perform exactly the opposite, a “non-flux”, if you will, to eliminate any fusion of the two metals.

The other consideration for a bullet lube is not ‘how much’ but how effective. By effective, I mean, is its composition appropriate for the heat and pressure of the load. I will absolutely comment that even a big-lube bullet with a hard synthetic wax that needs velocities of over 2,000fps and pressures in the 20-30,000psi range and temperature thresholds of over 200 degrees will NOT work at CAS loadings either. It is the lube content and bullet design/alloy that plays more to effective “lubing” (read anti-tinning) than how much is available. If you are getting a grease-ring at the muzzle of your rifle and pistols, you have sufficient lube. If bullets you recover from a soft berm still have a load of lube, it is too hard and not working optimally.

Now, I have stated the major purpose for bullet lube. The secondary purpose is to leave sufficient moisture in the bore to keep powder fouling soft and manageable. Here is where the big-lube bullets do have an advantage, but only if the bullets are cast from very soft alloy. A very soft alloy would be in the range of 8BHN to 11BHN. You will notice that those extolling the virtues of the big-lube bullets are casting their own and haven’t mentioned the alloy they use, the softer alloy is a serious part of the formula for those bullets’ success.

If you are shooting with Black Powder, there is NO substitute for wet swiping between stages. Even with the extra lube provided with the big groove bullets, there will be an accumulation of powder residue in the bore. The smaller the bore, the sooner the residue will negatively impact accuracy. I shoot 32-20’s and I know that after about 48 rounds of full load Goex 2F, over a three-hour period, the rifle will start to loose accuracy. It isn’t because the lube isn’t working, it is because waiting for 30 to 45 minutes between stages will harden the black powder residue even if it is “on top’ of the best lube available.

I started this answer with the comment that our bullet/lube combination compares “Favorably” to the big-lube bullets. I will stand behind that answer and suggest that any prudent BP shooter who wants to maintain accuracy and be competitive is also the BP shooter you see wet wiping their bores between stages. Heck, even the old buffalo hunters wet wiped or urinated down their bores every 10 shoots or so. They knew that even with the best lube, the biggest grooves and timed firing the bore needed to be ‘hosed’ out to keep the accuracy necessary for their trade. Likewise, if you ever have the chance to watch a championship BPCR Silhouette match, watch the shooters use a blow-tube to keep the powder fouling soft between shots. Then they clean between relays. This is with bullets that carry significantly more of the same lube than the Big-Lube bullets for CAS. Simply stated, in the case of CAS shooting, more is not necessarily better, but it might help if you are a lazy shooter and don’t wet swipe your bores between stages.

Updated FAQs available at www.cowboybullets.com and then click **FAQs**.

Not comfortable ordering online? Call us toll free at **1-866-4 Bullet(s)** – or – 1-866-428-5538
Be sure to leave your phone number, caliber, weight, size and quantity as well as your shipping address!



“The bullet with the ‘ding’ cast in!”