

Casting Softnose Bullets From ANY Conventional Moulds

This is the final distillation of how to use my results to cast your own SOFT POINT boolits from any conventional (i.e.: base-pour) Lyman, RCBS, Lee etc mould.

1. Decide how much of your boolit will be pure lead, and conjure a way of measuring that amount of pure lead. This can be via ladling liquid lead with a fabricated tiny dipper, perhaps a pistol cartridge case of the proper volume with a wire handle added. It can be via a "donor" pure-lead bullet of the correct weight, cast for this purpose, which will fit in the cavity of the mould to be used for making the softpoints. It can be a measured length of lead wire. It can be....?
2. Get the full melting pot as **HOT AS IT WILL GO**, assuming an electrically-heated pot. Place the mould **IN THE POT**, in contact with the melt, and wait for it to get as hot as possible....several minutes at least. Then place the pure-lead component in the mould. We want it to melt and take on the form of the bullet nose.
3. **REMOVE** the mould from the heat source, and **ALLOW THE NOSE TO SOLIDIFY. THIS IS IMPORTANT**, because it prevents the alloys from mixing, as they might do if the base is poured while the nose is still liquid.
4. Once the nose is solidified, **ADD THE HARDER SHANK METAL**, leaving a generous sprue puddle on the plate, and again allow the alloy to solidify.

-----We now have two completely-separate hardnesses of alloy in the cavity, with a probably-weak attachment to each other and a visible joint or crease where the metals meet. This is where most earlier types of softpoint cast bullets run into possible trouble. To fix the potential weak point, we will.....**MAKE IT INTO A ONE-PART BOOLIT!!!!**

5. Place the filled mould, with its pure-lead and harder-alloy contents, **IN CONTACT WITH THE TOP OF THE MELT IN THE FURNACE AGAIN**. Watch until the entire sprue has remelted, maybe a couple of minutes or more, and then wait a minute or two after that sprue-melting occurs, before removing the mould from the heat. Waiting a bit longer ensures that everything in the cavity is **DEFINITELY** melted, and that's what we need.
6. With a minimum of disturbance, agitation, vibration etc., place the bottom of the mould on a wet cloth pad and watch closely until the sprue solidifies again. Then, **WAIT A MINUTE OR TWO LONGER** before opening the mould, to absolutely ensure that the boolit has solidified in the cavity.

We now have a harder-based, soft-nose cast boolit. It does **NOT** have a weak point at the juncture of the alloys, because we melted them together **WITHOUT** disturbing their orientation in the cavity. That is, the pure lead is still up-front, and the harder alloy is still in the shank.

Production is obviously fairly slow, but we only need a handful of the softpoints for actual shots at animals. This is because our practice and zeroing can be done with **NON-softnoses** cast from exactly the same cavity. The minor weight difference due to the pure-lead component has no effect on zeroing or anything else.

My current thinking is that about 1/2 of the length of the nose (of a bore-riding design) should be pure lead, on normal-weight for-caliber boolits (180-220/.30, 150/.270, 250-300/.338 etc.) With modern cartridges, where cast boolits normally aren't used (or useable) at the max speeds attainable in the cartridge, I suggest leaning to the heaviest possible cast bullet for best effect on game. Ergo, I'd use 220 grains in '06 or .300 Mags, 300 grains in .338, 300+ in a .375 H&H, etc. As we get up to .40-plus caliber, "normal" speeds for jacketed bullets can often be reached with cast loads as well. The .45-70 is the classic example, but the .404, .416, .458 and many others are equally adaptable to the cast softpoint for hunting purposes.

The distribution of proportions of pure-lead to hard alloy is entirely under the control of the maker, of course. Some testing of personally-cast boolits on wetpack or water jugs will prove very interesting. My preference is to have a LOT of shank metal left if the softpoint should destroy itself on bone or whatever. This way the shank will keep penetrating due to decent remaining sectional density. Hence, my belief that having about half of the nose length in pure lead will be in the right area.

Once decent accuracy is achieved in the 1800-2000+ fps speed range, the rifle will have enough reach (flatness of trajectory) to make 200 yard shots quite practical. My .416 with 365 at 2100 fps drops three inches at 200 yards from a 160-yard zero, and lands three inches high at 100 with the same sight setting. That is a highly-useable 200-yard load for elk, moose, deer, or whatever.

I'm quite excited about the success of this development work. Cast softpoints have suffered an 'iffy' reputation for years, because most of them were in fact TWO-part bullets, and although some decent successes were reported with such bullets, there were also reports of the bullets coming apart on impact, meaning that the two "parts" would separate. I believe the tribulations of the earlier versions were avoidable by the simple procedure described above....get the two different alloys into proximity and in their correct locations, and re-melt them together. THEN, by George, we have a ONE-PIECE boolit, and no mistake.

Look at the wide variety of nose shapes used in jacketed bullets, and realize that whatever the shape, almost all except the monometals such as Barnes use PURE LEAD (or nearly-so) to initiate their controlled expansion. To me, this also indicates that a pure-lead nose on a cast boolit of almost ANY shape will also expand easily on impact. I don't believe that "slumping" of the softnose under acceleration forces will be much of a factor at speeds up to 2000 fps. I believe that with boolits made as described here, my cast projectiles have arrived at a point where they don't give up much at all to the "more-modern" jacketed bullet in the hunting fields. I do however think that BIGGER cast bullets are better than smaller ones for hunting, and prefer to start my candidate rifles for CB hunting with the .338 and go up from there.

I'm posting this so that newcomers to our Board don't have to trudge through the entire story of how I arrived at where I ended up on this search. Dare I say, it might warrant a sticky or "article" status, due to the fact that the topic comes up so frequently?

Regards from BruceB in Nevada

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Note color change at the junction between soft nose and body.