



Instructions for using Cast Bullet Engineering's Chamber Casting Alloy (CCA)

Our Chamber Casting Alloy has been specially formulated to replicate the exact properties of Cerrosafe™ alloy.

CCA is the best choice for making a chamber and throat casting of a rifle's chamber that might be in question. It is also particularly good for accurate measurements of the throat region of a rifle to properly ascertain cast bullet fit. It can also be used for extracting a stuck cartridge case after a head separation event.

Instructions:-

1. Please ensure that the firearm is unloaded, of course that is common sense, but I have to tell you!
2. I also remove the scope if fitted, and the forend, or the complete stock. No-one wants molten lead on their stock, or scope.
3. Clean and dry the chamber or area you wish to cast. You can pre-warm the chamber with a heat gun and very judicious use if you wish to.
4. Run a fairly tight fitting cleaning patch on a jag from the muzzle to about 2-3cm from the start of the throat, or to where you want to take your measurements. I leave the rod in the barrel as it makes it easier to tap out the cast later.
5. Heat the CCA in a small ladle, a bullet casting ladle is ideal, just make sure it is clean with no contamination. A small gas torch is perfect, try not to apply direct heat to the metal, just the ladle.
6. CCA melts at 158-190 F (70-88 C) so very little heat is required. When molten, pour into the chamber to the desired level. Try not to overheat the CCA.
7. Don't overfill the chamber area, CCA in the locking lug region is extremely difficult to remove.
8. As soon as the CCA has solidified and no longer presents a burn hazard, very gently push or tap it out of the chamber. This should be done no more than 10-15 minutes after casting. At one hour after casting, it will have expanded to full size and be very difficult to get out.
9. At one hour after casting, the chamber or throat cast will be at the exact size to take your measurements with a micrometer, Vernier calipers are not accurate enough.
10. You can label the cast and put it away, I put mine in the reloading die box. If it's not needed, CCA can be remelted over and over again. I also put the date on my casts.
11. Please remember to re-oil the chamber, barrel and complete firearm before you put it away.
12. Don't forget to wash your hands with soap and water after using CCA or any lead based product.
13. Over the page is a chart of expansion rates over time, measured in inches for CCA.
14. It may be helpful to know that CCA has a density of 9.2 to calculate how much CCA is required to fill a chamber. A Cubic Centimeter (CC) of water weighs 1 gram. A CC of CCA will weigh 9.2 grams.



Expansion rates for CCA over time.

Time after casting	Size in inches
2 minutes	-.0004"
6 minutes	-.0007"
30 minutes	-.0009"
1 hour	Exact size
2 hours	+.0016"
5 hours	+.0018"
7 hours	+.0019"
10 hours	+.0019"
24 hours	+.0022"
96 hours	+.0025"
200 hours	+.0025"
500 hours	+.0025"