



EZ960® Sterling Overview & Firing

Available in lump clay form, slip/paste and syringe, EZ960 sterling silver metal clay comes right out of the package ready to form, fire and finish with no mixing and no carbon required. Invented by Bill Struve from Metal Adventures, the inventor of BRONZclay™ and COPPRclay™.

EZ960 is a great, all purpose metal clay with excellent working properties. Because the clay is a sterling silver alloy, one of its best attributes is its post firing strength, in comparison to fine silver. This inherent strength makes EZ960 the perfect choice for jewelry that takes lots of abuse, such as rings and bracelets. It is also great for jewelry with findings and components such as bails, hinges and clasps, as well as delicate pieces that would benefit from the strength of sterling silver.

Wet Clay

Ready to use directly from the package, the 1st thing you will notice is its smooth, creamy consistency. The clay accepts and telegraphs the smallest of details in textures very well. It is easy to roll and form, and is surprisingly non-sticky. It also has a high moisture content, making it easy to work with in its wet form, as it stays workable and pliable without drying and cracking when forming, texturizing or molding. For best long term storage and to maintain hydration and workability, store unused EZ960 in a clay hydrator charged with distilled water.

Silhouette Paper Cutter

EZ960 clay, when rolled to 1 or 2 cards thick, cuts like a dream on the Silhouette paper cutter.

Greenware and Dry Construction

In its dried, greenware stage, EZ960 is easy to sand and carve. Dried pieces are quite flexible, less delicate and less fragile. This is a plus when fitting parts and pieces or when handling, assembling or manipulating your greenware. Making paste for assembly of pieces and parts is easy... simply add a few drops of distilled water to a small amount of clay to create your desired consistency. If necessary, EZ960 drills easily in its greenware state, and is not prone to cracking, chipping or other issues.

Embedding Objects

Cubic zirconia, lab created gemstones, bezel cups and other findings or embeddables can be co-fired with EZ960. Please refer to our Gemstone Firing Guide for a comprehensive list of gemstones that are compatible with the firing times and temperatures of EZ960. Most, but not all, cz's and lab created gemstones can be fired at 1675°F / 913°C for 2 hours on an open kiln shelf (see Firing Schedule below) without failure or color change.

Firing

While torch firing is technically feasible, it is not recommended. After ensuring the clay is bone-dry, kiln fire on a hard ceramic kiln shelf raised up from the kiln floor. Fire at full ramp speed at any of the times and temperatures below:

1675°F / 913°C	2 hours
1700°F / 927°C	1 hour
1725°F / 941°C	15 minutes

For low temperature kilns:

1650°F / 899°C	4 hours
1625°F / 885°C	4 hours
1600°F / 871°C	8 hours

Note: If bending post firing, we recommend firing for 3 hours at 1675°F, as not all kilns are accurately calibrated. An additional hour of "soak" time ensures complete sintering.



COOL TOOLS

To prevent sticking, create a thin coating of crushed vermiculite on a raised hard ceramic kiln shelf. For objects that require special support, vermiculite, pumice or alumina hydrate in a kiln safe container works well. We do not recommend fiber blanket, as it may stick to EZ960 during firing. The use of a ceramic kiln shelf is recommended and will prevent sticking. Items directly from the kiln will be slightly grayish in appearance, and is normal for an alloy of this type.

Note: Muffle kilns have heating elements on three sides (no heating element in the door), therefore any air leakage around the door can create cool spots near and around the door. For this reason, to ensure complete sintering, we recommend firing all metal clays in the rear center portion of the kiln.

Shrinkage

During firing, EZ960 will shrink 10% to 11% as a result of the sintering process, as the organic clay binders burn off in the kiln. This relatively low shrink-rate, combined with the inherent strength of Sterling, makes EZ960 an excellent candidate for rings and bracelets, delicate items, or other jewelry that may be subject to heavy wear.

Finishing and Polishing

When finishing, EZ960 provides either an easy satin finish, or, if you like, a beautiful mirror finish.

For a satin finish, steel brush your piece directly out of the kiln, followed by 1 to 2 hours in a rotary tumbler. A magnetic tumbler will drastically reduce the time needed in a tumbler.

For a mirror finish, use the same process as above. Then, using a flex shaft or other rotary tool, polish with radial bristle discs and, lastly, silicone polishing wheels and points.

Enameling

When enameling over silver, most enamelists choose fine silver as a base, as it does not require depletion gilding prior to firing enamels. Having said that, after firing, EZ960 can be enameled, however results are not identical to fine silver. Despite being a sterling alloy, it does not require depletion gilding prior to enameling when using opaque enamels, and will provide good results. Transparent enamels can also be used, however, some color distortion or cloudiness may occur due to copper oxides in the alloy. We recommend depletion gilding prior to using transparent enamels. For all enamels, the prep work, firing sequences and firing schedules are the same as with fine silver. Choose EZ960 for accent enameling or the use of opaque enamels on rings, bracelets, or wherever an alloy or additional strength is desired.

Patination

To achieve a good, dark result from Liver of Sulphur (LOS) or Patina Gel, ensure your piece is absolutely clean by soaking and then brushing with hot water, soap, and ammonia. Using a strong solution of LOS in very hot distilled water, dip or soak your piece in the solution until you get the darkness or result you desire. Adding a teaspoon of ammonia to your LOS bath can also help achieve a darker result or, possibly, a rainbow effect. A bath of baking soda and water will neutralize the LOS bath and halt the patination process. Then, either by hand or by machine, bring up the high points with a polishing cloth, Scotchbrite™ pad (satin finish), or polishing wheels (high shine or mirror finish).

Soldering

Once fired, EZ960 is metallurgically just like other sterling silver metals, but, like other fired metal clays, it is more porous than sheet stock or cast items. Due to this porosity, EZ960 will “soak up” solder. When possible, prepare areas for solder by burnishing to close the open pores and reduce the tendency to absorb solder. Join other metals and findings to fired EZ960 by using the same flux, solder and torch(es) as you would to solder other silver products or gold.

Hallmarking

Hallmark as Sterling.