Accent Silver™ Instructions



Accent Silver™ by Jewelry Material Innovations is a silver-alloy slip used to apply silver layers to copper, bronze and brass metals. Accent Silver is bonded to copper-bearing base metals through a process similar to soldering. The Accent Silver coated metal is heated to a specified temperature and held for a duration that allows the metallurgic process to occur. All of this is done in an oxygen-reduced atmosphere inside the firing pan to protect the base metal from oxidizing.

Accent Silver is mixed with distilled water and applied in two coats, then fired in a jewelry kiln to permanently bond the silver to the surface of the metal. After firing, the silver-embellished surface can be polished and patinated just like fine or sterling silver.

1. Prep the Metal

Successful bonding requires a clean, abraded surface, free from oxides, fingerprints and compounds. There are several options for cleaning and abrading the surface. Bronze and copper metal clay items can be tumbled prior to application if desired.

Prepare the metal by sanding, brushing, or scrubbing with a 3M[™] Scotchbrite[™] pad. A Flexible Shaft Machine can also be used with bristle discs, fiber wheels, steel wheels, sandpaper or coarse polishing points.

2. Mixing & Application - Base Coat

Stir the Accent Silver powder with a clean, dry palette knife. Break up any small lumps in the powder by mashing them against the container wall.

Dip and hold the flat brush in a small dish of distilled water for several seconds to allow the natural bristles to take up the water. Dip the wet (not dripping) brush into the container of Accent Silver to get a ball of the material on the end of the brush. Wipe the ball into a small pile on the mixing disc (acrylic disc) and pat it with the brush to encourage it to take up all the water, then sweep it back into a pile. Add a drop or two of water using the palette knife. Pat and sweep the material until it is very smooth and creamy, not runny.

Brush a thin coat on the areas to be embellished. Any spots that are missed by the first coat will not be thick enough after firing. Do not allow the slip to puddle in the nooks and crannies. If there are areas that puddle, spread the material out to redistribute. Allow the base coat to dry at room temperature. Air dry or move to a metal clay warmer. The coat should be opaque. If a rough, loose blue layer has formed on the surface of your piece, brush off with a soft bristle brush. Do not use a wire brush.

Note: Any unused Accent Silver on your disc or brush can be left to dry. Rehydrate when needed.

3. Mixing & Application - Cover Coat

To mix the cover coat, first rehydrate your application brush by dipping and holding in the distilled water container. Next, rehydrate the previously used Accent Silver on your mixing disc by dabbing it with the wet brush. Then add new material and mix as before, but this time add a drop less water than you did for the first coat. Use the palette knife to mash any lumps. The consistency of the slip should be smooth and creamy, but thicker than the first coat.

Accent Silver

Brush Accent Silver over the dried base coat, a little thicker than the base coat. The coverage should be even. While a single coat is not sufficient, applying the cover coat too thick is a waste of material. Don't worry if the details and fine texture are filled in. The surface will be smooth after firing.

Work quickly in applying the cover coat because the moisture can rehydrate the base coat and pull it back up, leaving bald spots. Any bald spots can be repaired with a touch-up coat. Keep the cover coat smooth and free of lumps so the firing finish will be smooth, otherwise heavy burnishing will be required to smooth the final layer.

Allow the coated item to dry completely before firing. White reside may form on the surface as it dries. This is normal.

4. Firing

Fill a firing pan with activated carbon, bury the items and replace the lid.

Arrange four 1/2" or taller kiln posts inside the kiln for the firing pan to sit on, leaving clearance for tongs. If your kiln is a brick model, elevate the pan so it is in line with a heating element. The firing pan is inserted and removed from a preheated kiln with tongs, just as in enameling. Have a trivet ready to receive the hot firing pan.

Preheat your kiln to 1200°F / 650°C. When the kiln has reached the set temperature, open the door quickly, set the pan on the kiln posts using firing tongs and set timer. The kiln will cool a bit after the pan has been inserted. Begin timing when the kiln has reached about 1180°F / 640°C, and heat for 10 more minutes. Wear gloves!

When the timer goes off, open the door immediately and remove the firing pan to a trivet to cool. The firing pan cools in less than 30 minutes, and can be opened carefully in about 10 minutes using gloves.

Note: Accent Silver can be applied to an entire piece, both front and back, but it must be bonded in a single firing.

Finishing

Using a stainless steel hand brush, gently brush off the firing residue and reveal a dull silver color. This step is meant only to remove the firing residue.

Next, use the stainless steel scratch brush to burnish the silver. Set the bristles to about 1/8" in length. Using a circular motion, scour the silver surface lightly to bring up a clean, satin finish. Now the silver surface can be burnished or polished to your desired finish.

Clean Up

Accent Silver left on your mixing disc between coats can be left to dry. Store the disc in a covered area between sessions. While wet, spread remaining product out thinly on the disc for easier rehydration. To rehydrate, dab the dried material with a damp brush, then use a palette knife to scrape the material in a pile, adding new material as needed.

Safety Precautions

Accent Silver contains fine silver powder and a chemical fluxing agent that can irritate the eyes. Wash hands after use. Do not touch eyes while handling Accent Silver. If Accent Silver contacts the eyes, flush immediately with water for at least fifteen minutes and see a physician. Although Accent Silver is not highly toxic, avoid ingesting it. If ingested, contact a physician immediately.