

Galvanic Copper for Silver Mirrors

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Purpose:

Coppering the back of a silver mirror prolongs the life of the mirror by protecting the silver. Air-borne sulfur and other corrosive chemicals that make it through the backing paint are attracted to and neutralized by the copper before they can attack the silver. The copper layer on a finished mirror is hidden by the silver and the paint so it does not need to look perfect. Uneven and blotchy copper will protect the silver so long as all the silver is coppered.

Wet versus Dry Iron Powder:

Some companies mix the iron powder with water before applying it to the glass. We find that you can get a more even application if you apply the iron as a dry dust. The fine mesh insert in our sifter jar helps to distribute the dust evenly. If you remember to replace the cap on the jar, your jar of powder should last a very long time. Many thanks to Phil Trast, master silverer at Armand Lee in Chicago, for showing us this simple technique.



Step 1 – Dilute the Galvanic Copper Concentrate

Pour the entire 250 ml bottle of Galvanic Copper Concentrate into your 1 quart trigger spray bottle. Fill the bottle to the top neck ring with distilled water. Diluted Galvanic Copper solution has an indefinite shelf life.



Step 2 – Silver and Rinse the Mirror

Silver the glass according to our kit instructions. When the silver deposit is complete, rinse the silver thoroughly with distilled water.



Step 3 – Sprinkle on Dry Iron Powder

Sprinkle a **light** even layer of iron powder dust over the wet silver. You do not need a heavy layer of powder.



Step 4 – Spray on Galvanic Copper Solution

Spray the silver with Galvanic Copper. The copper layer forms immediately. You can use the force of the spray to move the iron powder around to get a complete layer of copper over the silver.



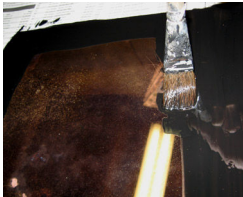
Step 5 – Rinse the Copper

When the copper layer is complete, stand the glass on edge and rinse off **all** of the iron powder with plain distilled water.



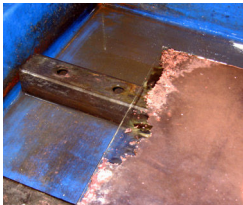
Step 6 – Dry the Mirror

Set the mirror, **silver side out**, on edge to dry. If you let it dry flat, water spots could show up in the finished mirror. A heated fan or hair drier speeds up the process.



Step 6 – Paint the Mirror

When the mirror is completely dry, paint it with Mirror Backing-Paint. Your coppered silver mirror will continue to offer a perfect reflection of your skill for decades to come.



Troubleshooting:

Galvanic Copper will peel the silver off the glass if:

- the edges of the glass were not perfectly clean when you started
- you handled the glass with your bare hands after you cleaned it
- you did not rinse the tin layer well enough

Peeling silver happens to even the best mirror makers sometimes. The only remedy is to strip the glass and start over. Use Galena Remover to dissolve both the copper and the silver and clean the glass thoroughly before re-silvering and re-coppering it.

A perfectly coppered silver mirror is the pinnacle of our craft.

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February 21, 2009