

Reticulation Made Easy

Using Reticulation Silver

Introduction

Specially formulated reticulation silver alloy contains a lower percentage of silver and a higher percentage of copper (80/20), making it ideal for reticulation. Done effectively, reticulation presents a beautifully patterned surface finish that lends itself well to a wide variety of jewelry designs and is an excellent choice for all types of jewelry items. This instruction guide will help you create this attractive, unusual finish.



Part One: Depletion Gild Your Reticulation Silver

What is depletion gilding?

Depletion gilding is a process of creating a layer of fine silver at the surface of a silver alloy. First, the silver is heated sufficiently to cause oxidation of the copper in the surface layer, then the oxidized copper is removed by soaking the silver in a mild acid (pickle) solution (the “depletion”). This process leaves a thin layer of fine silver on the surface of the metal (the “gilding”). If it is burnished with a soft brass brush, this layer will help inhibit tarnish. For best results, use only freshly mixed, hot pickle solution to remove the oxidation.

Items Needed:

Torch

Pickle pot (#501-012)

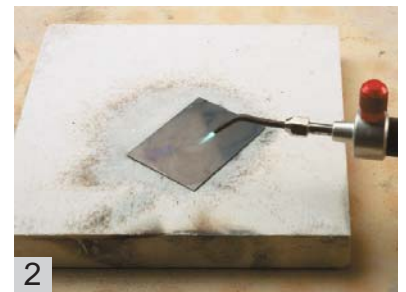
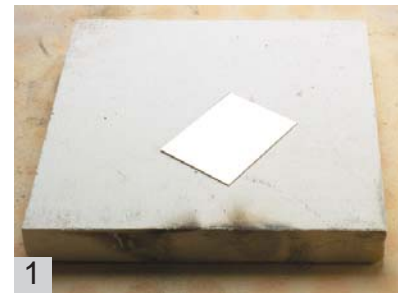
Rio pickle (#501-023/3)

Copper tongs (#501-017)

Solderite™ pad, 12" x 12" (#502-052)

Process:

1. Place the silver item near the center of the Solderite™ pad.
2. Using a neutral flame, heat the silver until it begins to darken (oxidizes). Hold the metal at temperature (showing a light pink color) for 2 minutes, then move the silver to a cool place on the pad and let stand for one minute.
3. Using copper tongs, pick up the silver and quench it in hot pickle solution.
⚠ Caution: The metal is still hot; use care to prevent acid from splashing onto skin, clothing or surrounding equipment.
Allow the piece to soak for 3–5 minutes or until all oxides are removed and the surface of the piece turns white.
4. Remove the piece from the pickle with copper tongs and rinse in water.



Continued on back

You will need to repeat this process approximately three times. Each time you repeat the process, you will notice that heating produces less and less oxidation on the surface of the metal. By the third repetition, you will notice little or no oxidation, and the metal surface will appear a frosty white. This is exactly what you want to see before proceeding.

As each repetition of the heating process eats a little deeper into the surface of the metal, the surface becomes slightly porous. Now the surface is gilded with fine silver and is ready for the reticulation process.

Part Two: Reticulate the Surface of Your Silver

1. Apply the torch once again to your metal and focus the heat evenly over a smaller area of the silver, moving smoothly back and forth across the surface. The metal should be heated to a dull red color before moving along to the next small section. **Please Note:** To ensure the best result, we suggest using a hot, oxidizing torch flame

As you move away from each section, you will notice the surface layer begin to fold and crinkle as it cools at a different rate than the alloy layer beneath it.

Please Note: The deeper your fine-silver surface layer is, the more pronounced the reticulation effect will be.

2. Smoothly work your way over the entire surface of the metal, taking care to be consistent with the concentration of heat on each area. When finished, allow the metal to cool fully.

Burnish down the surface of the metal with a brass brush before mechanical polishing to prevent the polishing compounds from being embedded in the porous surface of the gilded metal.

Now you are ready to shape, bend, cut or form the reticulated silver to use in your designs, adding contrast, texture and unique variety to each piece.



7500 Bluewater Road NW • Albuquerque, NM 87121-1962 USA
800.545.6566 • FAX: 800.965.2329 • www.riogrande.com
International: 505.839.3011 • International FAX: 505.839.3016