What you need

- 3” x 2” black and white image on copy paper, see article for specifics
- Fresh Sculpey® III polymer clay
- Pasta machine or rolling tool
- Knife for cutting (tissue blade or X-Acto®)
- Plate glass, oven tray, or wax paper
- Desk lamp or other gentle heat source
- Oven
- Adobe® Photoshop® and/or Microsoft® Word computer programs (optional)
- Photocopy machine with iron-based toner
- 32 lb. laser gloss paper

During the past several years I have tried many approaches to making many different types of hinges in PMC®. Engineering a hinge on a jewelry scale is an exacting endeavor. Next month, in part 2, I will detail the steps in making this hinged box. This month, I’ll cover the decorative technique, which has to be done before assembling the box.

Tear away is the name of a technique I first learned as a way to make pictorial elements and texturing materials of, and for, polymer clay. Also known as “etching on polymer,” it was taught to me in the mid-1990s by its originator, polymer artist extraordinaire, Gwen Gibson.

My first application of tear away to metal was at the bench. I discovered that the delicate etched paper part of tear away worked well for embossing metal sheet through roll printing. Later in the decade, when I first discovered PMC®, it was a short jump to the idea of using it for texture on metal clay.

At the time, the other primary method for putting my own designs on the surface of metal clay was having rubber stamps made. Although I did this several times, I eventually tired of the rubber stamps, for a few reasons. First, the time it took to have them made; from making the drawings to using them for texture took weeks. Even though they were made from my own designs, the surface of metal clay textured with a rubber stamp had a mechanical quality to it that I found unsatisfying.
Because the stamps were machine-made, they had a machine look. Also, because of the depth of relief in a rubber stamp, I needed to use a lot of PMC® when using them. I rolled the metal clay to 5, or even 6 cards, to be sure of having a strong piece of jewelry once it was fired and finished.

In this article, I describe how to make tear away textures for use on metal clay. By creating etched polymer plates and “clay papers” from photocopies, you can make a custom texture from your own collages and designs, or copyright-free artwork.

The surface of metal clay textured with tear away has a distinctive quality that makes it truly unique among texturing materials. The depth of relief a tear away texture impresses into the surface of the metal clay is 1 card. I roll out the clay at whatever card height my design dictates, and I drop one card from each pile, rolling the clay paper onto the oiled metal clay. This “drop card” or “controlled card texturing” is a way of approaching texture that ensures that I won’t over-thin my PMC® when texturing, or use more clay than I need. This helps me use enough of the material for strength, but no more than that, making it cost effective.

Although the textured metal surface I get when I have used tear away is in and of itself worth the effort, the topography of metal clay textured with tear away is also ideal for Keum-boo. The low relief lets me burnish the gold foil into the crevices without tearing the foil.

The process consists of burnishing a photocopy onto polymer clay, letting it rest, and tearing it off the clay. Because the photocopy toner bonds with the plasticizer in the polymer, the toner on the paper brings a layer of polymer with it when it’s torn away. Once baked, this “clay paper” is the texturing tool.

The polymer clay that the paper has been torn from is cut with a delicate relief of the same image as the “clay paper.” When it’s baked, the polymer part becomes a durable texturing “plate.” Although I prefer the “clay paper,” both can be used to texture metal clay or polymer clay. The “clay paper” can be used, but only once, to roll print metal. In addition, both the “clay paper” and the etched polymer plate can be cut and colored, and used pictorially.

In the following steps, I describe how to make your own custom-etched polymer plates and “clay papers” from photocopies, collages, drawings, or copyright-free clip art. When done in the following manner, the process is consistent and reliable, and produces texturing tools you can use again and again.

The variables in this technique are: Polymer clay brand, copy machine and toner type, heat, friction, time, and most important, paper. Too little heat, or friction (from burnishing), and nothing happens; too much heat, and the photocopy image transfers to the clay. Older photocopy machines that use iron-based toner cartridges work very well. Some laser printers that use toner cartridges also work. Glossy paper like Hammermill® 32lb. Color Laser Gloss, also Staples® brand works consistently better than basic copy paper. Other important variables are time and temperature; although 20 minutes should get you a decent pull, experiment with longer hold times, up to 45 minutes. The resting time will also vary depending on climate, season and humidity.

1. Make a collage of drawn images, text, or use copyright-free clip art. It must be black and white line art, no half tones.

2. Invert the collage in Adobe® Photoshop®, or have it done at a copy shop. (By “invert” I mean, everywhere there is white, make black, and everywhere there is black, make white.) You can also do this in Microsoft® Word. To invert text in Word, select your text, choose white as the text color, and choose black as the “highlight” color. This will make your text white with a black background. If your image is text,
you’ll need to reverse it if you want to be able to read it later. To do this from Word, print the image on clear acetate. To photocopy this image for tear away, flip the acetate so that the type is copied backwards. You can also reverse text in Photoshop® by going to “image,” and “flip horizontal.” A copy shop will also be able to invert and reverse for you.

3 Make a copy using 32lb. laser gloss paper on a copy machine that uses iron-based toner, turned up to the darkest setting you can use without muddying your image. Cut out a piece of the image. Do not exceed an image size of 3" x 2" until you’ve gotten some experience with the technique. Leave a ¾" tab at one end of your piece of paper.

4 There’s no need to condition the Sculpey® III polymer clay. Lighter colors (colors with more white in them) work best for tear away because they contain more plasticizer, the ingredient that bonds with toner. Choose light colors, or mix white into dark colors. Roll it out to the thickest setting on your pasta machine. If rolling by hand, roll a smooth, consistent sheet of clay, approximately ⅛” thick. Cut a rectangle a bit larger than your intended image, and place it on a portable surface that can go into the oven—for example, plate glass, an oven tray, or wax paper. Roll it firmly onto the work surface, so that it’s well anchored to the surface. At least until you get the hang of it, the rigidity of the glass or oven tray is preferable to the wax paper.

5 Place the photocopy face down on the clay, and fold the ¾" tab up at one end. Burnish the copy onto the clay using a vigorous circular motion, with the heel of your hand, or your flat palm for 1 - 2 minutes. This supplies both heat and pressure. It also removes any air pockets that may be trapped between the clay and the copy.

6 Position the piece 7” to 8” (15cm to 20cm) under a lamp (no closer), and let it rest for about 10–15 minutes. Burnish it again for about a minute, and let it rest again under the lamp for another 10–15 minutes (experiment with longer rest times). Test the temperature of the clay with your hand; it should be barely warm to the touch. If it’s much warmer than that, you’ll get an image transfer. Instead of the clay sticking to the toner, the toner will all transfer to the clay. You do not want this to happen.

7 Holding the work surface steady with one hand, grasp the paper tab with the other, and tear the paper off the clay. For best results, tear low and quickly, in one smooth motion, as you would a Band-Aid®. A successful tear away will clearly show a layer of clay wherever there was toner on the copy and a delicate, but definite etched image on the surface of the polymer clay.
Bake the etched clay plate and the clay paper, which will be rolled up, for 20 minutes at 265°. Don’t worry about the paper being rolled up. Using the tear away paper as a texture will cause it to unroll.

If you’re just using the polymer to generate texture, you can re-use the polymer portion once you’ve torn off the paper. Turn the sheet of polymer over so you have a clean surface without any traces of toner, roll it onto your work surface, and use it again. Since the process is leaching plasticizer out of the polymer, re-use is limited. I re-use those polymer sheets I don’t keep for use as pictures one or two times at the most. I prefer the clay paper for texture and don’t use the polymer part for that, but you may if you like. Sculpey® III clay never cures strong enough for most applications, so this is the only use I have for it.

Most poor results are due to the following errors: Wrong brand of polymer, old polymer, old copy (older than 8 months), wrong copying equipment (wrong toner), not enough burnishing, too small of a pull tab, too cold, too hot, too long of a rest, too short of a rest, and/or the tear off was too slow.

The clay paper is ephemeral. Mine last for 6 months to a year. The bond between the clay and the toner breaks down over time. With use, eventually little chips of polymer will shake or peel off. The olive oil we use as a mold release for texturing metal clay speeds up the deterioration of the clay/toner bond on the paper. This cannot be helped. However, if you oil your metal clay instead of oiling the clay paper, the life of the clay paper will be considerably extended.

If you notice chips of polymer shedding onto your metal clay after texturing with clay paper, let the metal clay dry, and shake off or pick off the chips. If left on the metal clay they will usually burn off without any harm to the metal clay. However, if you’re making hollow forms, I suggest you go to the effort of picking the chips off as they sometimes interfere with consistent shrinkage.

These tell-tale chips of polymer are a sign that your clay paper is aging. The oil is getting between the polymer and the paper, and breaking the bond. You can ignore it for awhile, but it is a sign of deterioration.

**Next month:** Texturing metal clay with tear away, and building a hinged box pendant in PMC®.

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Celie Fago is a Vermont-based jewelry artist who works in metal clay, metal, and polymer clay. She is one of eight Senior Instructors with the Rio Rewards Certification Program. In addition to her numerous articles published on PMC® and polymer, she also worked with Tim McCreight on the video *Push Play for PMC®: Intermediate Techniques*. Celie’s latest book is *Keum-Boo on Silver*. For more on Celie and her work, visit her Web site, www.celiefago.com.

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