

3-D Images for Free

by Carissa Nichols



Being a person who **really** likes shiny sparkly things, I was happy to stumble across Pier Volkus and Mike Beusseler's work on mica shift. Imagine getting an actual 3-D image just from manipulating one color of clay! The fact that no fancy tools or expensive pieces of equipment are needed just increases the appeal of this technique.

Mica Shift

So what is this 'Mica Shift' everyone is talking about? Well, anyone who's seen translucent Premo or Fimo has seen what polymer clay looks like in its 'natural state'. During the manufacturing process, pigments are added to color the clay. Sometimes an additional ingredient, mica, is also added. Mica is what makes the gold, pearl, colored pearls, copper and silver colors that are so popular.

Mica is a naturally occurring stone that forms in thin crystalline wafers. It is very soft and can be pulled apart with your fingertips. Egyptian, Greek and Roman women used ground up mica in their make-up to impart a 'glow' to their skin because even when ground to a powder, mica's crystalline structure allows it to reflect light.

When you unwrap a bar of gold Premo (**my** personal favorite), you may notice streaks of dark gold running through the clay. When you process the clay in a pasta machine, the streaks disappear and the clay seems to brighten several shades and become much more reflective.

What you've done is re-align the thin mica particles so that they all 'face' up, reflecting the light. The darker streaks or spots you saw before running the clay through the pasta machine were bundles of mica chips that were 'facing' sideways -- partially turned so the light was not able to reach their reflective surfaces.

If you roll your clay back into a ball, the mica will shift again, out of alignment, and the darker streaks and spots will reappear.

Processing the Clay

If you want to align the mica for maximum shine you must first process the clay. Form your lump of clay into a rough flat sheet. Set your pasta machine (Atlas Brand) on the #1 setting and feed the clay through.

(Note: your pasta machine will have a longer life span if you hand condition your clay to the consistency of leather and hand form your sheets so that they are not overly thick and force your rollers apart.)

Once the sheet has gone through the machine, loosely fold it in half and place the clay, fold side first, into your rollers. Pass it through the machine again. (This prevents air bubbles from forming within the sheet of clay.)

Repeat until all your streaks disappear and the clay begins to shine. This may take about 10-20 passes through the machine, depending on the age of your clay.

Once the clay is aligned, I normally pop it onto some wax paper and throw it into the refrigerator for about 10-15 minutes. Overly warm clay (especially Premo) is sticky and difficult to deal with.

Once it has cooled, the clay firms up and is easier to use. Go ahead and leave the clay on the wax paper. You may want to tape the paper down, so it doesn't move while you use the tools on the clay.

A Simple Project

I will be showing you some different techniques in the coming months, but we will start out with something simple and instantly gratifying. This technique came to me from Marie Segal from the National Polymer Clay Guild retreat two years ago.

Supplies:

- Mica shift clay
- 4" by 4" square of plastic wide-grid canvas (used for making doll furniture or hooked rugs -- can be found at hobby or sewing stores)
- Pasta machine
- Sharp clean blade
- Wallpaper brayer

Using the #1 setting on the pasta machine, prepare two sheets of clay a little smaller than the plastic canvas. Place the sheets together and smooth the surface gently with a roller to remove air bubbles and to make sure there is full contact between the two sheets.

Spray the grid with water, as this will prevent the clay from sticking to the grid, or smooth baby powder on the surface of the clay if you prefer. Then place the grid down on the flat surface of the clay.

Using the brayer, gently roll the grid onto the clay until you see the clay just start to come up through the small openings in the grid.

Peel the grid off very slowly so as to minimize distortion. You should see the reverse of the grid formed on the surface of the clay.

Let the clay sit a bit or put it in the fridge again.

Once it's cooled, you will now carefully slice off just the very top surface of the clay. Cut away just enough to make the clay surface smooth again.

This is a little tricky and may take some practice. The great thing about this part is that if you **do** mess up, you can stick the whole thing back in the pasta machine and start over! No muss, no fuss!

Once you have sliced off the thin top layer of clay, put the clay back through the pasta machine on the #4 setting. You will end up with a design of boxes formed from 'negative' and 'positive' mica particles.

Form the clay sheet into beads or pendants and bake. You can even wet-sand the clay to improve the shine and the 3-D effects. I hope you have fun!

