Polymer Clay 101:
Polymer Clay and Basic Tools

By Toni Pullen

Welcome to beginning jewelry making with polymer clay. While not an inclusive course, this overview discusses the basic supplies and safety guidelines of working with polymer clay. What is polymer clay? How do I bake it and for how long? What tools are needed for a beginner to get started?

The fascinating and advanced techniques of cane making (working clay into rolls with a consistent pattern throughout the log) and Mokumé Gane (a Japanese technique which first stacks colors of rolled clay and then slices into them to reveal patterns) will not be explored in this tutorial.

My goal for this class is to help the student gain a basic knowledge of a fun and exciting art medium by illustrating beginner tips and techniques. This course will have you on the way to designing in no time!

Materials List

Materials below are only a few of the many choices available for working with polymer clay.

- Premo! Sculpey polymer clay – 2 ounce package
- Premo! Accents Sculpey polymer clay – 2 ounce package
- Mica powders
- Acrylic paints
- Gilder's paste

Tool List – Don't forget Safety Glasses!

Tools below are only a few of the many choices available for working with polymer clay.

- Dedicated oven
- Oven thermometer
- Clay cutting blade
- Pasta machine (optional)
- Miscellaneous clay shaping tools
- Dedicated smooth work surface-ceramic tile or non-stick craft sheet
- Household Items – Aluminum foil, drinking straws, small stiff brushes
- Small ceramic tile for baking
- Index card or cardstock
- Texture sheets
- Rubber stamps
- Buffing tools
- Sculpey liquid polymer clay (optional)
- Sculpey Bake & Bond (optional)
- Sculpey Glaze (satin or gloss)
- Small soft paint brush

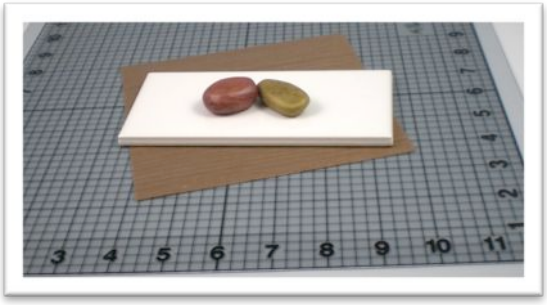
About Polymer Clay

Polymer clay contains no actual clay minerals, but is composed of polymer polyvinyl chloride (PVC) and a plasticizer. With oven-hardening and gel-like properties, this modeling material is a fun and desirable art medium.

Each brand of clay is different in composition and each has its strengths and weaknesses. Some brands are quite firm, such as Fimo, Fimo Soft, or Kato Polyclay. I use Premo! by Sculpey for functional jewelry designs, plus I love the metallic color choices. It's workable from the package and is very strong after baking, while retaining slight flexibility in the finished piece. Clay choice is largely a matter of personal preference.

Wrap unused clay tightly in plastic wrap, keeping it clean and free of dust and other debris, and store at room temperature. Polymer clay will not air dry; however, curing can begin at around 90 degrees F.

Work Surface



Always use a protected and dedicated work surface for polymer clay. A non-stick craft sheet or ceramic tile are good choices. Some artists use glass or marble. A smooth paper cutting mat with grid lines for proper measuring and cutting can also be helpful.

SAFETY TIP: Keep work surface away from all food sources! Designate working surfaces for clay only.

Conditioning

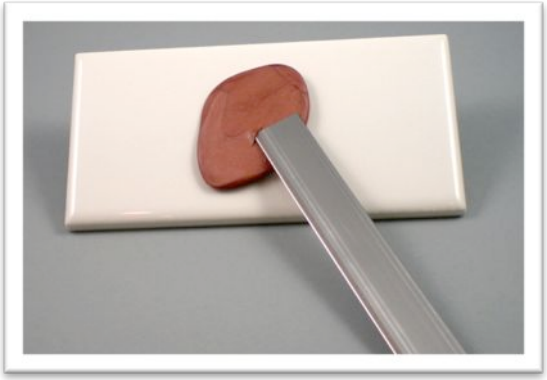
Polymer clay must be conditioned for proper curing and strength after baking. Using a clay cutting blade, slice the desired amount from the block and begin kneading by rolling the clay first into a ball and warming with your hands. Continue working the clay until soft and workable. If you feel the clay is overworked and too soft, allow it to rest for 30 minutes.

With more experience, a pasta machine can be used for conditioning, especially when consistent sized sheets are required. Run the clay through the machine several times until soft and workable. Pasta machines have several settings, ranging from thickest to thinnest.

TIP: For making organic or freeform jewelry components, I condition the clay with my hands or use an acrylic roller as shown in the Tools photo

Air Bubbles

While conditioning clay occasional air bubbles may appear. If this happens, gently use the clay cutting blade to open the bubble and then smooth over with your finger. Air bubbles can be seen after baking if not removed beforehand.



SAFETY TIP: Cutting blades are EXTREMELY sharp! Use with caution.

Tools

So many tools exist to make life easier! And this certainly holds true for working with polymer clay. However, fabulous jewelry designs can be achieved with a few simple items. A clay cutting blade, an acrylic roller and various other clay shaping tools will get you started. Small or mini cookie cutters make great jewelry components. Any sharp-ended tool can be used to pierce a hole into unbaked clay. And did I mention your hands?

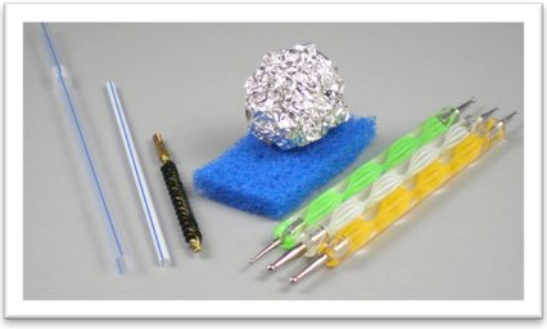
SAFETY TIP: Keep all tools, cutters and rollers away from food sources! Designate them for clay use only.

Texturing

Textures are the first step in making a jewelry design uniquely yours. As with tools, there are many ways to texture clay. When using a texture sheet, place the sheet over rolled and conditioned clay. Press down firmly and use an acrylic roller to imprint the design, going back and forth in all directions. If using a rubber stamp, press straight down onto rolled clay to achieve a deep impression.

Great texture and design can be achieved by using items from the kitchen or other areas of the home. Drinking straws make easy and consistent holes in clay. Crumpled aluminum foil or a scratch pad pressed into clay give interesting textures, as well as small household brushes. I always look for other sources, too. The colorful stylus set in the photo is from my local beauty supply store. These are sold for nail art!

And remember to designate all items for clay use only.



Embellishments

Some of my favorite embellishments and finishing techniques are shown here. Many more ways exist and favorites will evolve as your clay journey progresses. Mica powders are my number one because of their shimmer and metallic effects. Use a small soft brush to apply in desired areas before baking. Gilder's paste can be applied with fingertips after baking for highlights. Acrylic paints can be applied before or after baking with a damp piece of paper towel.

Bakeable Adhesives

Translucent liquid Sculpey is bakeable polymer clay, and is used to bond raw clay to raw clay, or to add raw clay layers to previously baked layers.

Bake & Bond by Sculpey is also a bakeable adhesive and yields a strong bond between 2 pieces of clay. This product also adheres clay to porous materials.

Both products must be baked for adhesion to occur.

Bead Making

Many techniques exist for making beads, and because I like a handcrafted look in my work, I prefer to roll beads by hand. Various products on the market work very well, such as acrylic bead rollers and bead baking racks with piercing pins. For hand rolled beads, break off a piece of clay (or use a small round cutter) and simply roll between your hands to achieve the desired shape. Gently continue shaping with your fingers and texture if desired.

Insert a toothpick by gently twisting and pushing into one end of the bead. Go about half way into the bead, stop, and repeat with toothpick on the opposite end. This makes a nice hole for stringing with almost any material. I bake my beads right on the toothpicks inserted into a piece of aluminum foil. Bake according to the manufacturer's guidelines on the clay package.

Baking

All polymer clays must be cured/baked in a dedicated oven. Preheat oven to manufacturer's recommended temperature using an oven thermometer. Place raw clay onto a piece of cardstock or index card and then onto a small ceramic tile before baking. Paper keeps the back of the clay smooth while baking.

Designate a toaster oven or small craft oven for baking clay. I do not recommend using a home oven. Each brand of clay has its own baking time which is determined by the thickness of the piece. Follow the manufacturer's recommended guidelines on the package to ensure proper baking.

This baking oven from Amaco—a kiln manufacturer—is designed to bake polymer clay.

Polymer clay is certified safe by the Art & Craft Materials Institute.

SAFETY TIP: Never use a microwave to cure clay! While non-toxic, over baked clay can burn and give forth toxic fumes. If this happens, turn off the oven and remove clay to an outside area. Always bake in a properly ventilated room.

Buffing

For small, organic jewelry components, if clay is conditioned well and edges are smooth before baking, I don't feel the need to do lots of buffing or sanding. If necessary, I use several grits of buffing pads, labeled in order of use, or a med/fine emery board to smooth rough edges on baked clay. Wet sandpaper may also be used.

Sealing

I do recommend sealing a finished piece after it's completely cool. This will protect the piece while wearing and also prevent any embellishments such as mica powders, etc. from fading over time.

Apply Sculpey Glaze (gloss or satin) to the finished piece using a small, soft brush. Let dry completely.

More Options: Design possibilities are endless! While this tutorial is not at all a comprehensive one, a few other creative ways to use polymer clay are: inlays, marbling, mosaics, making snakes, carving, extruding, color mixing, image transfers, adding color glazes, and copper, silver or gold leaf. Have fun with this artistic and versatile medium!

You are now ready to enroll in my Polymer Clay and Copper Bracelet class on Wubbers University. A great beginner project, this bracelet comes together quickly with a clay focal component and copper chain.

Review Questions

1) True/False. Polymer clay can be rolled and shaped on the kitchen counter.
    a) False
    b) True

2) True/False. Air bubbles are normal and will not change the appearance of a finished piece.
    a) True
    b) False

3) Some everyday household items used for working with polymer clay are:
    a) Drinking straws
    b) Crumpled aluminum foil
    c) Both of the above

4) True/False Polymer clay can be baked in a microwave.
    a) False
    b) True

