

Leaf-Textured RING

Create a ring with a leaf texture and a comfort-fit band.

by Alina Gridley



This ring design presents some fun challenges. One is smoothing the seam without distorting the delicate leaf pattern, then getting the pattern to be consistent across that seam. A lap join creates the seam, and with a bit of clay and a few tools, the leaf pattern looks like it was never interrupted. Another challenge is getting the sizing just right.

Prepare a ring mandrel. Place a ring mandrel into its holder or a bench vise so that you can work with both hands.

Determine the size of ring you want to make, then adjust for shrinkage (see "The Shrinkage Factor," page 33). Cut a strip of flexible Teflon sheet. Place a small piece of tape on one long edge of the strip. Place the strip on the mandrel so that one long edge is at the desired size on the mandrel and the strip extends toward the smaller ring sizes.

Wrap the Teflon strip around the ring mandrel, then trim it so that the short ends just meet and do not overlap. Place a small piece of tape on the seam, and burnish the tape smooth [1]. Any bump in the Teflon or tape will create a bump in your ring.

NOTE: You can create this ring in any width. Make rings 8 mm ($\frac{5}{16}$ in.) and wider an additional half size larger.

Roll out the ring base. Apply natural hand balm or olive oil to your work surface and a plastic roller. Roll 25 g of clay in your hands, then shape it into a thick, elongated snake [2]. While maintaining the shape of the snake, roll it out into a strip 6 playing cards (1.5 mm) thick.

Add the leaf texture. Place a skeleton leaf high-relief side down onto the surface of the clay, with the main vein of the leaf centered down the clay strip [3]. Roll the clay to 5 cards (1.25 mm) thick.

NOTE: Buy the largest skeleton leaves you can find. Remember that you'll be using only the center portion and the overall size of the leaf might limit the sizes of rings you can make.

Roll slowly, making sure the main vein stays centered in the clay strip. Don't worry if the leaf peels away from the surface in the areas that you already rolled over.

Remove the leaf from the clay. Gently lift the top end of the leaf to separate it from the clay. Carefully remove the entire leaf, leaving the texture behind [4]. If the clay lifts with the leaf, gently brush the surface of the clay with your finger to release it.

Trim the ring band. Determine the width of your ring, and carefully oil a tissue blade. While keeping the main vein centered in the strip, trim excess clay from each edge; keep the edges as straight as possible [5].

NOTE: I found that band widths under 3 mm (about $\frac{1}{8}$ in.) do not allow for enough leaf texture on each side of the main vein to have a good aesthetic; my ring was 10 mm ($\frac{3}{8}$ in.) wide before firing.

TIP: Add a handle to your tissue blade using two-part epoxy and two craft sticks. Apply adhesive to the craft sticks, add one to each side of the top edge of the blade. Allow the adhesive to cure before using the blade.

Neaten the edges. Place the edge of a tissue blade against the cut edge of the clay, then gently push inward on the band. Repeat for the other edge.

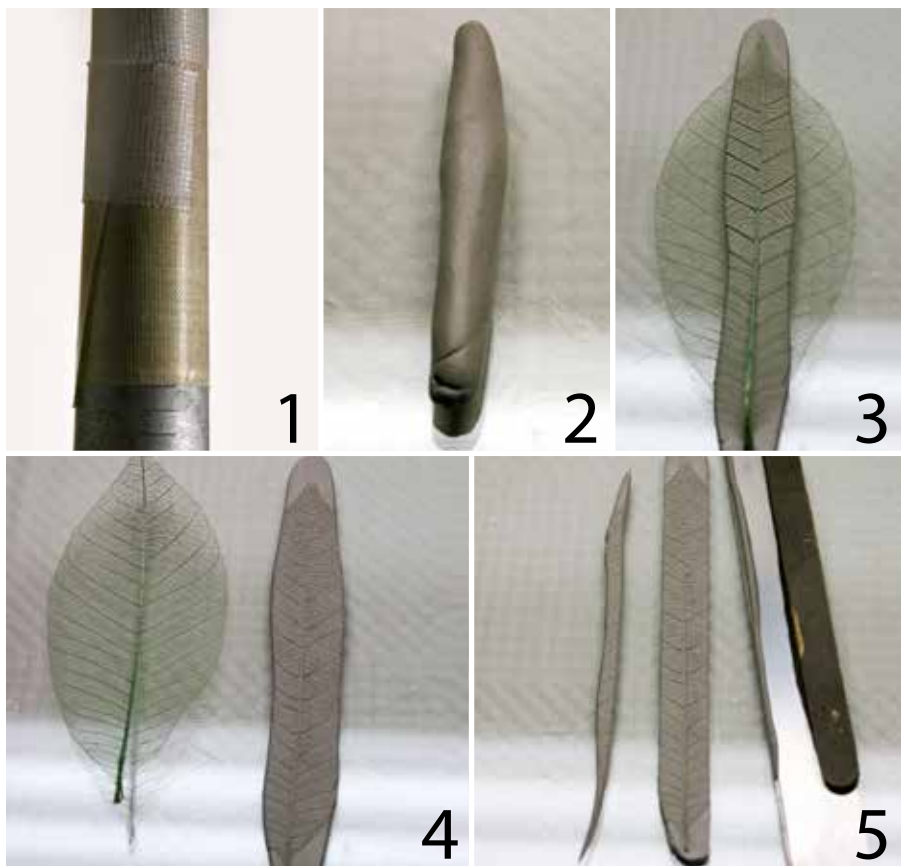


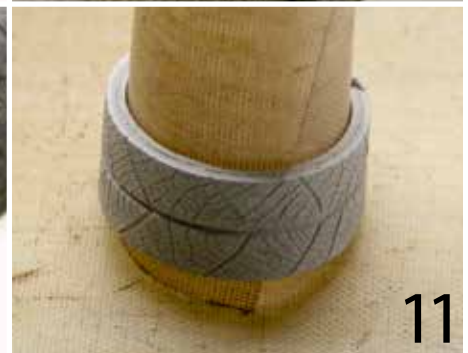
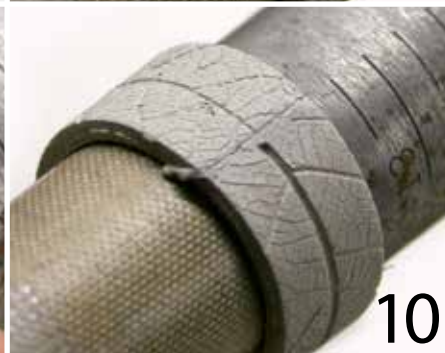
materials

- Metal clay:
 - Lump clay: 25 g
 - Syringe clay (with 22 gauge/blue tip)

tools & supplies

- Ring mandrel and holder
- Ring sizer
- Skeleton leaf: 76–102 mm (3–4 in.) long
- Large-tip paintbrush
- Needle files: crossing or half-round diamond
- Ring pellets (optional)





Angle one end of the ring band. Using a tissue blade and cutting down at a 45° angle, trim one short end of the ring band, creating an angled end [6].

Wrap the band around the mandrel. Place the raw (untrimmed) end of the clay strip on the mandrel so one long edge is at the edge of the Teflon at the determined ring size. Carefully wrap the strip around the mandrel so the ends overlap [7].

NOTE: Keep the edges as straight as possible as you work so the pattern lines up. Don't stretch the clay; you want to maintain an even thickness in your band.

Trim the raw end so that there is some overlap.

Angle the second edge of the ring band. Place the angled end on top of the raw end of the ring band, then use a tissue blade to trim the raw end at a matching 45° angle. Gently bring the ends together to check for fit [8]; do not press. Make any necessary adjustments, but don't trim the band so much that the seam has a gap.

Connect the ends of the band. Apply syringe clay to each angled edge, applying at least two layers in a zigzag motion [9]. Gently bring the ends of the strip together,

and clean up any excess syringe clay that comes out of the seam [10]. Allow the clay to dry to semi-dry; any longer and it will shrink onto the mandrel, making it difficult to remove without breaking.

Remove the ring band from the mandrel. Carefully cut or remove the tape connecting the Teflon sheet to the mandrel. Carefully slide the Teflon sheet, with the ring on it, off the mandrel. Place the ring band, with the Teflon still inside it, onto a second flexible Teflon sheet on your work surface [11]. Allow the ring to dry to mostly dry.

Remove the Teflon from the ring band. Pressing on the seam in the Teflon, fold the Teflon sheet in on itself, slowly removing it from the inside of the ring band. Work carefully so you do not disturb the seam in the clay. Dry the ring to completely dry, naturally or on a mug warmer.

Fill in any gaps in the inside seam. If you used a mug warmer, remove the band and allow it to cool.

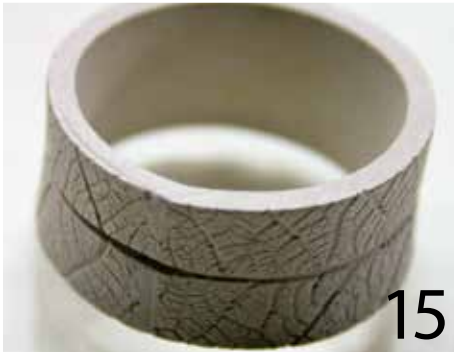
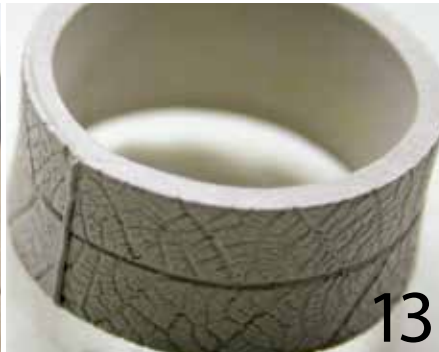
TIP: Allow any clay piece to cool before adding wet clay; a warm piece will dry wet clay quickly, making it difficult to work with.

Check the seam on the inside of the band, and fill any gaps with syringe clay. Use a paintbrush and a small amount of water to smooth the wet clay into the band. Let the band dry completely [12].

Sand the edges of the band. Place the ring band on a sheet of 600-grit sandpaper. Carefully move the band in a figure-8 motion to smooth the bottom edge. Turn the ring over and sand the second edge. Do not hold the band so firmly that it collapses in on itself.

TIP: Sanding in a figure-8 motion ensures you are sanding the piece evenly across the entire surface.

Fill in the outer seam. Check the outside of the ring band for gaps in the seam. If needed, apply a small amount of syringe clay to the seam [13]. Wait about 1 minute, then smooth the wet clay with your finger. Move your finger straight down the seam rather than side to side so you keep the leaf texture intact. Let the clay dry completely. Refill and dry the seam again if needed. Once the seam is clean, use a crossing or half-round diamond needle file to smooth it. Do not file too much, as you need to maintain the leaf texture [14].



the shrinkage factor

Even before firing, metal clay ring bands shrink 2–3% during the drying process. All metal clays then shrink further during firing. When creating a metal clay ring, you must increase the ring size to compensate for both shrinkage factors. As a general rule of thumb, increase the ring size by 2½ sizes for clays that shrink 8–10% and by 3½ sizes for clays that shrink 11–15%.

When firing your clay ring, place it in vermiculite to prevent the shrinkage from exceeding what was anticipated. You can also use a ring pellet to (almost) guarantee the desired ring size. Ring pellets are made from investment material that can withstand the high temperatures needed for firing metal clay. When placed inside the ring band during firing, they prevent the clay from shrinking beyond the size of the pellet. Commercial jewelry suppliers carry premade ring pellets as well as molds and investment for making your own.

Create the illusion that the leaf vein is uninterrupted. Use the edge of a crossing or half-round diamond needle file to deepen the main vein where it crosses the seam [15].

Sand the inside of the band. Use 600-grit sandpaper to smooth the seam on the inside of the band. Fill any remaining gaps with syringe clay, then smooth with a wet paintbrush. Let the ring band dry completely, then sand it again and repeat to add more syringe clay if needed.

Create a comfort-fit edge. Use 600-grit sandpaper to round the inner edge, then the outer edge of the ring band. Repeat with 1000-grit sandpaper to smooth all the edges [16]. Check the surface of the ring. Apply syringe clay to any areas that need filling. Dry completely, then sand again.

NOTE: Brush the surface of the ring with a dry paintbrush to remove any lingering fine particles. Any particles left on the surface may fire in place.

Fire the ring band. Place the ring band in a pile of vermiculite so that the vermiculite covers the lower third of the band. Or, place a ring pellet in the desired finished ring size into the clay band.

Fire the ring according to the clay manufacturer's instructions.

Finish the ring. Brush the ring with a brass brush and soapy water, then burnish it by hand or tumble it for 2 hours. Polish the surface to achieve the desired finish.

NOTE: While rotary tools will save time on polishing the inside of the ring band and along the edges, use only polishing cloths to polish the leaf texture. The rotary tools will wear down the leaf texture and alter the final look of the ring.

If desired, apply liver of sulfur to the ring to increase the definition of the leaf pattern.

