



COOL TOOLS

Emerald Tea Ring Instructions

Create this elegant ring with a unique prong-set stone using only 3 grams of PMC PRO silver alloy clay. Learn how strong this new silver-alloy clay is and how easy it is to work with.

Instructions are given for this project to be completed in PMC PRO. PMC Pro is wonderful directly from the package. Do not add a clay conditioner to this clay.

Supplies

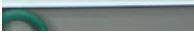
- PMC PRO Silver Alloy Clay
- 6x6mm square CZ or other stone



Toolbox			
Clayboard (WKS-106)	Clay Thickness Rolling Frames set (CRL-407)	Ultimate Non-Stick Roller (CRL-410)	CoolSlip (NST-201)
Texture Tiles of your choice	Ultra Clay Pick (CRV-103)	Ring Size Template in half or whole sizes (TMP-262, TMP-269)	Hollow Rings Template (TMP-264)
Tuff Cards (WKS-103)	Flexible Tissue Blade (CRV-101)	Sponge Sanding Pad Fine (POL-201)	Stone Setting Bur 6mm (DRL-306)
4-Cut Needle File, Triangle (FIL-102)	Mini Palette Knife (ACC-103)	Mixing Disc (WKS-302)	Riveting Hammer (HAM-109)
Dockyard Carvers (CRV-205)	Rubber Bench Block (DAP-205)	Black Silicone Polishers Barrel Set (POL-501)	Brown Silicone Polishers Barrel Set (POL-551)
Green Silicone Polishers Barrel Set (POL-555)			

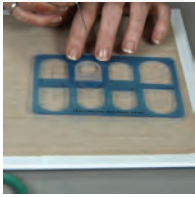
Making the Ring Shank

1. Condition your hands with Slik to avoid the clay sticking to fingers. Roll out a plain slab, 20 cards thick.
2. Place the slab between 2 textures that have been conditioned with CoolSlip. Place a stack of 2 textures left and right of the sandwiched slab and roll to 18 cards thick.
3. Place the texture slab on a Tuff Card. Select a ring size 5 sizes larger than your desired final size. Cut out the inside of the ring.

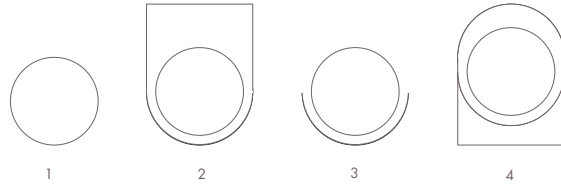




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4. Place the Hollow Rings Template in place for the bottom of the shank (the part that will be on your palm side). Use the size that works with the inside cut for an even shank. Cut the bottom half of the shank. See cutting diagram below for details. Remove and store excess clay.



1. Cut out center of shank, adding 5 sizes to desired size.
2. Position the Hollow Ring Template as shown.
3. Cut out lower half of ring shank.
4. Place the Hollow Ring Template as shown and cut out the top half.



5. Find the Hollow Rings Template size that matches up with the previous cut lines for the bottom of the shank. Place the template so there is more height to the top of the shank and cut this one out. See cutting diagram for details.

6. Remove and store excess clay. Set the shank aside to dry.

Make the Prongs

1. Roll out an un-textured slab, 9 cards thick.
2. Place the slab on the same texture used for the shank slab and roll it down to 6 cards.
3. Cut a strip that is the same width as the ring shank, then cut 2 pieces that are 1/4" long from this strip.
4. Set aside to dry.

Refine the Ring Shank & Create the Settings



1. Use a Fine or Superfine Sponge Sanding Pad to refine the outside of the ring. It should be sanded smooth to remove any unevenness from cutting.

2. Use a half-round sanding stick or half-round ring file to smooth the inside of the shank, taking care not to remove too much material and thereby make the final ring size too large.

3. Mark the center of the top of the ring shank with a Sharpie marker.

4. Use a 6mm Stone Setting bur to cut a seat halfway through the top shank.



5. Use a 4-cut needle file in triangle shape to file a triangle shape for the stone, perpendicular to the shank.

6. Use the tip of the same file to start 2 grooves perpendicular to the first groove.





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7. Place the ring on a ring mandrel and use the G2 V-groove Dockyard carver to enlarge the 2 side grooves so the stone fits nicely in the seat.



8. Test the fit of the stone and make adjustments as needed.

Refine and Assemble the Prongs



1. Place one of the prongs, textured side down, on a rubber block. Hold the back end of the prong down with one finger. Use the edge of the triangle needle file to file a groove about 1/3 from the end of the prong. Turn the file and use the flat side of the file to remove all but about 3 cards of material from the prong. Repeat for the other prong.

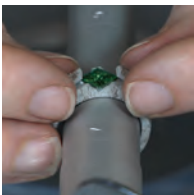


Textured side down.

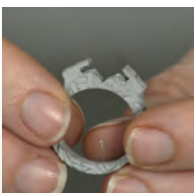
Remove the material as shown by the dotted line.



2. Place the ring on a ring mandrel and put the stone in the setting. Make and apply a small amount of paste to the back of the prong. Use tweezers to accurately place the prong. Apply paste to the other prong and place that one as well.



3. Apply pressure to the two prongs for several seconds so they bond.



4. Carefully remove the stone from the setting.
5. Use the paste to fill the seams on all sides of the prongs and allow to dry.
6. When dried, sand away any imperfections on the prongs or the seams with a Super Fine Sponge Sanding pad.



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Fire

1. Nestle the finished ring in a bed of activated carbon in your firing box. Use No-Flake Firing Foil to avoid the spalling mess of standard stainless steel. No ring sizing pellets are needed for this project, however, if you want to use one, place a Redy Pellet inside the shank, then place the ring inside of a bit of fiber blanket before burying in the activated carbon. This will keep carbon bits from becoming stuck between the ring and the Redy Pellet.
2. Place in the kiln on kiln posts and fire at fast ramp (full) to 1450F. Hold for 1 hour. When the program is complete, open the door about 1 inch and allow the red glow to die down, then use tongs to remove the firing box to a trivet to cool completely.

Finish and Set the Stone



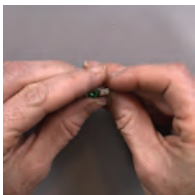
1. Remove the ring from the firing box. Use a brass brush with water and a bit of dish soap to burnish the ring. From here, you can complete polishing as you desire.



2. Mardel recommends pre-polishing with a 250 grit 3M Bristle Disc and then using files and sandpapers to further refine the surface.



3. For an easy mirror polish after filing and sanding, use a black (coarse) Silicone polisher in a barrel shape on the entire ring, follow that up with the brown (fine) and green (ultra fine) polishers.



4. Place the stone in the setting by turning it so it is square to the shank, sliding it into the setting and then turning it 90 degrees to snap into the setting.



5. Use a riveting hammer to hammer the prongs tight to the stone. Use many light blows rather than a few hard ones. If you overtighten the stone, you may crack it, so go easy and slow. Stop when the stone no longer wiggles.

6. Give the ring a final polish with a polishing cloth and wear it proudly! This ring is very strong and can be worn with the confidence of sterling silver.