

Art Clay World USA

Natural Ring Kit

The shape and design of this ring looks natural and hand made. Make the ring 2.5 sizes larger than desired. The goal is to make a ring with raised edges.



MATERIALS

10 grams Art Clay Silver 650/1200 Low Fire Slow Dry
Non-stick Ring Strip

ADDITIONAL TOOLS & SUPPLIES REQUIRED

- Non-stick surface, small paintbrush, stainless steel brush (short bristle), small files, 600, 1200 and 2000 grit sandpaper, agate burnisher, rubber block.
- Wooden ring mandrel
- Adjustable ring sizer
- Pencil
- Small piece of tape
- Firing equipment.

Drying Methods – may include hairdryer, oven, or toaster oven set below 250°F, food dehydrator, warming tray. Piece also may be left to dry naturally. (See *Drying Chart*)

Firing Methods – include either by electric kiln, hand-held butane torch, or gas stovetop burner. (See *Firing Chart*)

GENERAL RING SIZING

Art Clay shrinks 8-10% during firing. The shrinkage rate depends on the shape and volume of the ring. Prepare the foundation for the ring 1.5 – 2.5 American sizes larger. This will allow for the shrinkage of the clay during firing.

Begin by determining your ring size:

1. Using the adjustable ring sizer, measure your finger to a comfortable fit.
2. Select ring size that allows for shrinkage as described below. Put the ring sizer on the wooden mandrel and mark with the pencil where the mandrel fits snugly.



When the band is 3 mm thick, make the ring 1.5 sizes larger than desired.



When the band is flat (1.5mm) & 10mm wide, make the ring 2 sizes larger than desired.

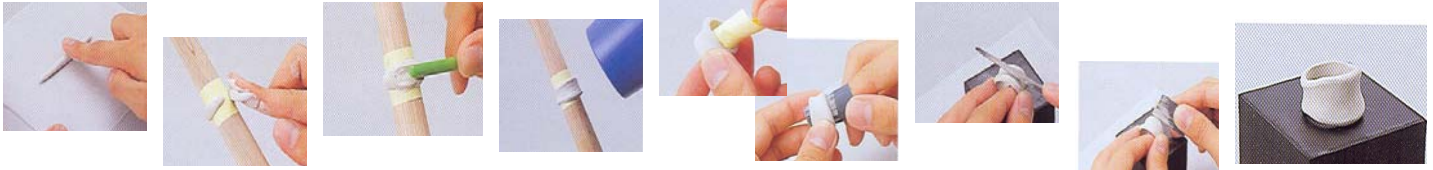


When the band is greater in thickness & width than those in A & B, make the ring 2.5 sizes larger than desired.

3. Wrap the non-stick strip around the pencil mark on the mandrel and cut so that the end just overlaps the beginning. Secure the strip with a small piece of tape. Tape only the Teflon sheet to itself, not to the mandrel. You will build your ring over the center of the marks that you can see through the non-stick strip.

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PROCESS



- ✚ Roll out clay type on non-stick surface, making a rope. Moisten as necessary.
- ✚ Lightly moisten the surface of the clay rope. Place it around the non-stick surface taped to the mandrel.
- ✚ Overlap the two ends of the clay and cut through both at once to form two blunt ends. Remove the cut off segments and wrap up to prevent drying. Join the blunt ends with paste and blend smooth. (paste is made by taking a small amount of clay and adding a few drops of water to form a thickened paste).
- ✚ While the clay is still soft, make an impression in the center of the ring with the handle of the medium file or other smooth object.
- ✚ Dry the entire piece completely for 10-20 minutes with a hot air dryer or dehydrator, or dry at room air for more than 24 hours.
- ✚ Take the ring and the Teflon strip off of the wooden mandrel. Remove the sheet slowly.
- ✚ Smooth the inside of the ring with 600 grit sandpaper. Be careful not to sand too much, as the size of the ring will change.
- ✚ Shape the outside of the ring with the medium fine file on the rubber block.
- ✚ Sand the surface with 600 and then 1200 grit sandpaper.
- ✚ This completes the forming process.
- ✚ Fire (see [Firing Chart](#)).
- ✚ Place piece on rubber block. Brush entire piece with stainless steel brush. Piece will now be in matte finish.
- ✚ Firmly burnish with agate burnisher to bring up shine. (Alternate method is to use a rotary tumbler with mixed shape stainless steel shot.)

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Drying Chart for Art Clay Series

	Drying Time			
	Hot Air Dryer	Cooking Plate	Kiln	Air Dry
ACS 650	More than 10 min.	More than 10 min. at 150°C / 302°F		More than 24 hrs.
ACS 650 Slow Dry	More than 45 min.	More than 20 min. at 150-180C / 302-356°F		Not recommended
Overlay Silver Paste	More than 10 min.	More than 10 min. at 100C /212° F		More than 60 min.
ACS Basic	More than 15 min.	More than 10 min. at 150C / 320°F		More than 24 hrs.
ACS Basic Slow Dry	More than 45 min.	More than 20 min. at 150-180C / 302-356°F		Not recommended
ACS Paper type	No need to dry			
ACS Oil Paste	More than 30 min.	More than 30 min. at 100C /212° F		More than 24 hrs.
AC Gold Clay type	More than 15 min.	More than 10 min. at 150C /320° F		More than 24 hrs.
AC Gold Paste type	(Undiluted) More than 5 min.	Not recommended		(Undiluted) More than 15 min.
	(Diluted) Depending on the medium amount.	Not recommended		(Diluted) NO

- Test pieces used for this chart are in 5g clay volume.
- Hot air dryer used for this chart is 1200W and 3-4 cm from the drying pieces.

Firing Chart for Art Clay Series

	Firing Temperature / Holding time (Kiln firing)								Other Methods		
	650°C 1202°F	700°C 1292°F	750°C 1382°F	780°C 1436°F	800°C 1472°F	850°C 1562°F	870°C 1598°F	990°C 1814°F	Stove top	Gas torch	
ACS 650	30min.	15min.	10min.	5min.					YES		
ACS 650 Slow Dry	30min.	15min.	10min.	5min.					YES		
Overlay Silver Paste	30min.	15min.	10min.	5min.	0min.				WHEN USED WITHOUT GLASS OR CERAMICS		
ACS Basic	(Holding time/ Fire from cold kiln)				30min.						20min.
ACS Basic Slow Dry					30min.	20min.	10min.	YES			
ACS Paper type					30min.	20min.				SMALL PIECES, I.E. APPLIQUE ON GREENWARE	
ACS Oil Paste					30min.	10min.					
ACG Clay type								60min.	ONLY AS PASTE FORM ON ALREADY FIRED SILVER TORCH ONLY		
ACG Paste type	Application on fired ACS 500°C(932°F) → 800°C(1472°F) / hold 5min.								YES	NO	
	Application on porcelain surface Cold kiln → 800°C(1472°F) → switch off → under 100°C(212°F) to take out								NO		
	Application on glass surface Cold kiln → 800°C(1472°F) / hold 5min. → crash cool to 600°C(1112°F) → close kiln door → natural cool to take out										

- Test pieces used for this chart are in 5g clay volume.

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