



SIO-2® Argila Natural Pottery Clay Instructions & Techniques

SIO-2® Argila is a completely natural pottery clay that is both easy and enjoyable to work with. It is perfect for modeling, sculpture, and throwing on a potter's wheel. Recommended for adults as well as children age 6 and up. This clay serves as an excellent educational material to foster manual dexterity and creativity. It's recommended for various crafts and creative arts, as well as any application requiring natural clay. With its high purity and fine texture, SIO-2® Argila offers outstanding plasticity, ensuring optimal performance during modeling.

Characteristics

Firing range: Cone 06-04 (1877F - 1971F)

Wet color: buff

Firing color: bright white

Texture: smooth

Water content: 16-20%

Avg shrinkage at Cone 06: 10%

*Non-toxic certified



Firing range: Cone 06-04 (1877F - 1971F)

Wet color: red

Firing color: reddish brown

Texture: silky-smooth

Water content: 16-20%

Avg shrinkage at Cone 06: 10%

*Non-toxic certified



Drying Guidelines

- Allow finished clay pieces to air dry to a bone dry state. Drying time varies depending on the thickness of the piece and the surrounding environmental conditions. Bone Dry clay is where as much water as possible has evaporated from the clay piece. If you hold it to your cheek, it will seem dry instead of cold and damp; it will look and feel chalky and is very fragile. It is at this stage that clay pieces are fired in the kiln.

Keys to Optimal Drying

1. **Uniform Drying** Let clay pieces dry slowly. Avoid exposing them to direct heat sources or drafts to minimize the risk of cracking.
2. **Delaying Drying** For large pieces, cover them with partially open plastic sheets so that moisture can escape slowly.
3. **Flat Pieces** When working with tiles or slabs, place a flat weight on top to prevent warping.

Firing

Bisque fire at cone 04.

Glaze fire to manufacture's guidelines between cone 05-06.

*The object slightly reduces in size when fired due to firing shrinkage.



Finishing Options

Glazing

Glazes can be applied directly to the greenware for a single firing. Glazes can be applied to bisque-ware and then glaze fired. Apply glaze to bisque pieces according to manufacture's guidelines.



*TIP: For glaze firing, leave the bottom of the piece unglazed so it does not stick to the kiln shelf or if the bottom of the piece is glazed set it on stilts to keep it off of the shelf surface.

*NOTE: Earthenware clay pieces are still porous after firing and are not waterproof.

- **Burnishing** - smoothing clay with a stone, plastic bag or a finger to give it a smooth, polished finish.
- **Sgraffito** - the act of carving through one layer of clay or underglaze to expose a different colored clay below it.
- **Staining** - adding pigments that come from minerals and oxides over the surface of the clay.

Tools Needed

- Fingertips are one of the best clay tools. They are great for pinching, poking, pulling and smoothing the clay.
- A damp sponge works great for smoothing and moistening the clay if it cracks while working.



- Recommend tools are the **Activ-Tools Clay Tool Set**, which includes essential tools for getting started with clay modeling. These tools allow you to cut, sculpt, shape, embellish, texture, scribe, and add fine details to any clay medium. They are easy to clean and dishwasher safe, making them perfect for all skill levels. The Activ-Tools Clay Tool Set will give a professional finishing touch to all your clay projects.



The set includes the following tools:

Flat Edge Ideal for creating indentations, concaving surfaces, and clay cutting.

Modeling Used for smoothing, contouring and pattern decoration.

Rough Cut Blade Perfect for scoring, texturing, making patterns, and creating lines.

Needle Point Great for making dots, holes, fine details and lettering.

Smooth Cut Blade Used for smoothing, and cutting clay.

Roller Cutter Useful for cutting out shapes, slabs and tracing patterns.



Specialty Tools

- **Rolling Pin** Our Clay Roller Kit is useful for rolling out clay in preparation for making any air dry clay creation. The rails provide the ability to roll the clay to the desired thickness - ensuring an even surface area for slabs, stamping or texturizing.

*When using the Clay Roller Kit, if your clay sticks to the board, spread a thin layer of cornstarch on the board or lay parchment paper on the surface prior to rolling.



- **Shape Cutters** The Activ-Tools: Geometric and Designer Clay Cutters help create clay shapes to embellish larger projects, or use the cutters to create freestanding clay projects.



- **Texture Sheets** Add detail, dimension, and texture to any clay project with the Activ-Tools Designer Texture Sheets. Simply spread a thin amount of cornstarch to a piece of clay, lay one of the Designer Clay Texture Sheets on top, and gently roll flat to make an impression.



- **Extruder** An *extruder* is a tool that passes clay through a tube to form coils, which are used for applied decorations. There are different types that can be hand-held, attached to a wall or table. A simple garlic press can be used to create coils for hair or fur for clay modeling sculptures.



- **Banning Wheel** The Sculpting Wheel from ACTÍVA is an excellent choice for pottery enthusiasts, as it can hold up to 30 pounds and features a 10 3/4 inch diameter. Its ability to rotate projects 360 degrees makes it versatile for various sculpting needs. It is turned by hand and used for finishing or decorating pottery. The low base design allows for convenient storage, while the free-wheeling ball bearing action ensures smooth operation. Constructed from industrial-grade plastic, it is rust-proof and resistant to stains, promising years of reliable use. Cleanup is a breeze with just soap and water, making it suitable for both adults and children.



Working Techniques

1. Wedging

Before starting, wedge the clay to achieve a uniform consistency and enhance its plasticity. Wedging makes clay more pliable, removes air pockets and any hard spots in the clay.

2. Maintain Moisture

If the clay becomes less flexible while working, slightly moisten hands. Avoid applying water directly to the clay to prevent over-saturation.

3. Joining Pieces

When joining two pieces, ensure that both have a similar moisture (hardness) level. Variations in shrinkage can cause the pieces to separate while drying. To secure the pieces together, score the surfaces and use slip.



*TIP: Slip is liquid clay, it is used to join pieces of clay together like glue, it can be poured into molds or used for decorating.

To make slip: Break soft clay into small pieces and place in a shallow container. Allow the clay to fully air dry into hard chunks. Add enough water to cover the dry clay pieces. The clay will break down absorbing the water and become mushy. Mix the mushy clay using and apply over scoring marks with a brush.



Stages of Clay

Slip - liquid clay.

Plastic - clay that is wet enough so that it can be shaped into forms by hand or on the wheel without breaking.

Leather Hard - clay that has started to dry but has some flexibility. It can still be carved, cut and joined together, but it is hard like a block of cheese.

Bone Dry - clay where as much water as possible has evaporated out of the piece. If you hold it to your cheek it will seem dry instead of cold and damp. It looks and feels chalky and is very fragile. It is at this stage that clay pieces are fired in the kiln.

Greenware - bone dry clay pieces that have not been fired in the kiln.

Bisque-ware - an unglazed clay piece that has been fired in the kiln once at a low temperature and is ready to be glazed.

Glaze-ware - a clay piece that has been fired twice, once in a bisque firing and a second time in a glaze firing. It has a glossy or matte glasslike finish and a smooth texture.

Storage

- Once the clay package is opened, wrap leftover clay in tightly sealed plastic bag to prevent it from drying out. Clay pieces can be stored in a damp box while in the process of sculpting to keep it moist and workable.

*ATTENTION: keep the product in a cool environment, avoiding high temperatures. Do not store at temperatures below 0°C (32°F), as freezing reduces its plasticity.



Softening

- If the clay hardens but remains moist, soften it by kneading it with dampened hands. If the clay has hardened during storage, but is still moist, it can be softened again by wrapping it in a moist towel for 24 hours.



Hand Building Clay Techniques

Modeling and Sculpting

The act of creating 3-dimensional forms out of clay. Clay can be pulled, pinched or joined together.

- *Additive* - Is the process of joining pieces to create a form.
- *Subtractive* - Is the process of removing pieces to create a form by carving it off.



Hollowing

Removing the inside clay from a solid form.

Pinching

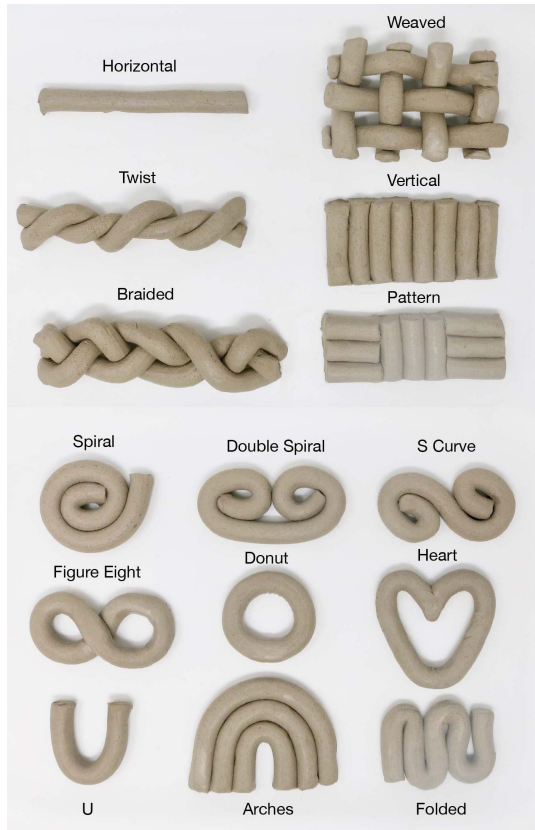
The process of squeezing a piece of clay between the thumb and forefingers to make a hollow shape. Pinch pots are made by pinching.



Coiling

Rolling or extruding a cylinder of clay to create a long snake like form. Coils can be stacked on top of each other to create pots or sculptures.

This technique allows for a variety of shapes and sizes, making it a versatile choice for artists. The potter can also incorporate textures and patterns by manipulating the surface of the coils, adding creative flair to the finished piece



Slab Construction

Rolling clay into a flat sheet with either a rolling pin or slab rolling machine. Clay slabs can be formed into pots or sculptures at the soft stage or the slabs can be left to stiffen and assembled when leather hard. Flat slabs can be used for relief sculptures or as a base for other sculptures.



Extruding

Creating long, solid and hollow clay forms with an extruder using a variety of machine dies. Extruders are great for making coils for construction, decorating, handles and hollow forms.

Mixing

Since the Argila clay comes in both a light and dark color, the two can be joined together or mixed together for a marbling effect. The finished sculpture can be left in its natural color or glazed with a clear coat of glaze.



Relief A sculpture that projects from a flat surface. Sculptural elements have been carved into or attached onto the flat surface. Reliefs are meant to be viewed from the front.

Stamping Impressions can be made into the clay using plastic, wood, rubber, metal, and ceramic stamps.



*NOTE: Dusting a light layer of corn starch over the area to be stamped will help the stamp not to stick to the surface of the clay.

Fluting

Using a carving tool to extract ribbons of clay from the surface of the piece.



Slump Molding Draping a slab of clay into a form to shape it. Molds can be made of plaster, wood, glass, plastic or bisque fired clay.



Hump Molding

Laying a slab of clay over the top of a form to shape it.



Throwing

SIO-2® Argila clay can be thrown on the potter's wheel.



*NOTE: SIO-2® Argila clay is a low-fire earthenware clay body and is not recommended for dinnerware ceramics.

