



Working with **GLASCLAY™**



Dog and Bear by Geneva Perkins



Bergundy By Geneva Perkins

Creating Glass Focal Beads,
Pendants and Sculptural Objects
Has Never Been Easier!

Brought to you by **Art Clay World USA**

Glass as Clay

Glass has been used to create art for thousands of years, from the Egyptians to the Romans, Greeks, Phoenicians, Italians...nearly every civilization has found beauty in glass. Even those with no knowledge of glassworking have used natural glass, in the form of volcanic glass and meteorite glass, in their art and jewelry objects.

Becoming a glass artist has, in the past, required knowledge in at least one of 3 areas:

- Cold-worked glass, which includes stained glass, beveled and carved glass
- Warm-worked glass, which includes kiln slumping, manipulating and casting hot glass
- Hot glass, which includes glass-blowing using a furnace, and flameworking, using torches, (during which the glass becomes molten)

All of these areas require extensive training, expensive equipment and tools, and plenty of time. Before now, without the use of molds and/or grinders, creating sculptural glass has been difficult.

GLASCLAY™ is a brand-new, ready-to-create mix of glass powder and binders that allows you to sculpt and create forms in glass without expensive tools or an intimate knowledge of glass physics. You just need to know the Coefficient of Expansion for the glass you're going to be working with if you plan on attaching GLASCLAY™ pieces to other glass surfaces. This compatibility is very important.

The Coefficient of expansion (CoE) is the amount of expansion or contraction for 1 cm of glass resulting from one degree Celsius change in temperature . Simply put, glass expands when heated, and different kinds of glass expand differently, depending on their formulae. If you mix glass with two different CoEs when hot, their incompatibility will result in fracture as the two cool together. Therefore, glass with a CoE of 90 can only be heated with another glass whose CoE is 90, etc. Generally speaking, the higher the CoE, the softer the glass, i.e., 33 (Pyrex) is harder than 90 (Bullseye/Uroboros) which is harder than 104 (Moretti).

When working with GLASCLAY™, this only becomes important if you are going to hot-attach a finished piece of glass clay to another piece of glass.

Safety Considerations

- Wash your hands well after using GLASCLAY™
- Wear a HEPA (high efficiency particulate air) filter mask when working with GLASCLAY™ powder. A true HEPA filter mask will remove 99.97% of air particulates. This is especially important if you have any respiratory troubles, such as asthma or COPD.
- Use dedicated tools to prevent cross-contamination with other types of clay, such as polymer or metal clay.
- Condition your hands and tools slightly with olive oil to prevent sticking.
- Follow the written firing instructions carefully, and do not use this product for any other purpose other than those appropriate for glass clay.



Blue Dangle, by Geneva Perkins

Recommended Tools When Working with GLASCLAY™

The same tools we're used to for working with other clays are also perfect for GLASCLAY™. It is recommended, however, that a separate set of tools is kept for each specific medium, in order to avoid cross-contamination between different products.

Standard Tools

- Portable, hard working surface
- Thin non-stick surface
- Rolling tool made of acrylic
- Spacers (slats or playing cards)
- Small paintbrushes
- Cocktail straws
- Measuring tool (ruler, tape)
- Craft knife
- Small file set and/or sanding pads
- toothpicks

Specialty Tools

- Specialty-tipped shaping tools
- Clay sculpting tools
- Rubber stamps
- Silicone texture sheets or molds
- Tissue blade or ceramic scraper
- Magnification lenses
- Specialty shape cutters (like fondant or small cookie cutters)
- Specifically-shaped brushes
- Hand drill/pin vise
- Engraving tools
- Extruders
- Embossers
- Flex shaft or other electric burnishing/polishing tool



Blue Pendant
By Geneva Perkins



Cameo Mold—Use different colors of GLASCLAY™ to build an elegant pendant!
ACW #FLX-600



GLASCLAY™ is easily drilled, allowing for perfect placement of holes.
Pin Vise ACW #F-048

GLASCLAY™ Tips and Suggestions

- Allow for a 15-20% shrinkage rate for GLASCLAY.
- Add wet clay to dry clay by moistening the dry clay with a wet fingertip. Press the two pieces gently together and smooth.
- Add dry clay to dry clay by moistening one side with a wet finger and attach.
- Shake the closed container of powder well before using.
- Use a HEPA filter mask when mixing.
- Use only metal or plastic tools, never wood or cardboard (do not use porous tools).
- You can use silicone molds, texture plates, or stamps for great design starters.
- Use distilled water to prevent color changes when firing.
- Condition any tools, molds, or textures with olive oil.
- Knead the clay for a minute or two after mixing to evenly disperse the binder. If the clay sticks, add more powder; if it cracks, add more water.
- You can mix GLASCLAY in advance and store in an airtight container in the refrigerator for several weeks. When you're ready to use the clay, warm the clay in your hands and knead again until workable..

Mixing GLASCLAY™

- Shake the closed container and allow powder to settle.
- Pour desired amount of colored powder into a clean bowl or onto a clean, non-stick sheet.
- Add a small amount of distilled water and mix with a metal spoon or other metal tool.
- Work into a ball by continuing to add water as needed.
- Coat hands with a thin layer of olive oil
- Knead the clay as mentioned above

Drying GLASCLAY™

It is recommended that you use a food dehydrator to dry GLASCLAY™. You can, alternatively, allow it to air dry, use a hair dryer, or small cup warmer.

Pre-finishing GLASCLAY™

- ◆ Once GLASCLAY™ is dry, it can be sanded for a smoother surface.
- ◆ You can use a flexible shaft rotary tool or other grinding tools to sculpt the dried clay.
- ◆ Drill holes by hand with a pin vise, or use a power tool.
- ◆ You can also drill holds and add fireable gemstones, or put fireable gemstones into fresh clay, sand down, dry, and attach to the body of your work with a little bit of water.

GLASCLAY™ Firing Instructions

GLASCLAY™ must be fired in a programmable, electric kiln whose temperature reaches and accurately holds at least 1400°F.

- ◆ Fiber paper should be used under all pieces in the kiln.
 - ◆ Your firing temperature will affect both color and result.
 - ◆ It is suggested that you fire a test piece first to truly gauge how your kiln will act while firing GLASCLAY™.
1. Place pieces to be fired on a kiln shelf covered with fiber paper.
 2. Ramp the kiln to 650°F for 35 minutes to burn out the binders. The pieces will appear black at this point.
 3. Continue to ramp the kiln at 585°F per hour to a temperature between 1230°F and 1330°F, depending on your kiln and the thickness of your piece.
 4. Once you have reached the desired temperature, hold for 3-10 minutes.
 5. Allow to cool to 650°F and then re-ramp to top firing temperature. Repeat until the desired look is achieved.
 6. Under normal circumstances, no further annealing is required of the glass. Allow the kiln to come to room temperature before removing the pieces, avoiding thermal shock of the glass.

Embellishments with GLASCLAY™

- ◆ Since the firing temperature of GLASCLAY™ does not normally exceed 1350°F., most Cubic Zirconia can be added safely and fired along with the clay pieces.
- ◆ Other GLASCLAY™ embellishments can be added prior to firing, using a small amount of water. Dry again thoroughly.
- ◆ Fireable wires, such as fine silver, can be added to the wet clay. Alternatively, a hole can be drilled into dry clay and wet clay added when inserting the wire into the hole. Other findings, such as fine silver screw eyes or fine silver brooch findings, can be added in much the same way. It is always easier to add findings to wet clay, rather than waiting until the clay dries.



New Green Pendant
By Geneva Perkins



Grape Final By Geneva Perkins



Grapes pendant
By Geneva Perkins

Art Clay World USA

is now a proud distributor of

GLASCLAY™

PATENT PENDING



12 color
Sample Pack



50gm
jars

Begin with a GLASCLAY™ Sample Pack, and then replenish any of the 12 available 90CoE colors as needed! Don't forget to order your GLASCLAY™-specific tool set, too!

**Contact us for all your
GLASCLAY™ needs:
Toll-free (in U.S.) 866-381-0100
708-857-8800
www.artclayworld.com**

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