

STAGES OF CLAY

1. **Plastic-ware-**

Clay that is soft, pliable and easy to work with. Right out of the bag or the pug mill.

2. **Leather-hard-**

Clay that has been allowed to dry slightly, making it stiffer and able to support its weight, but can still be worked on and have parts attached.

3. **Bone dry-**

Clay that has been allowed to dry all the way so that all of the moisture is gone and it is ready to fire the first time. The clay feels room temperature and slightly chalky/powdery

4. **Greenware**

- All stages that have not yet been fired:
 - Plastic, leather, and bone dry

5. **Bisque ware-**

The first firing for the clay, removes all of the water, (both actual and chemical) and carbon, The fusing of the particles has begun, yet the clay is still porous to allow for glaze absorption. It can no longer be slaked down and recycled.

6. Glaze ware-

The second firing of the clay with a coating of glaze upon its surface, it is fired to a higher temperature than bisque and therefore fuses the particles into a solid, non-porous state called vitrification.

What is a CONE?

➤ Temperature measurement system

- BISQUE: ^ 06 = 1865 degrees
- MID FIRE GLAZE: ^6 = 2195
- HIGH FIRE GLAZE: ^9-10 = 2400-3200 degrees

What is a Glaze?

➤ A combination of flux, opacifiers, and oxides that is painted on bisque ware in liquid form and melts/transforms in the kiln and turns into a glass like surface.

- **FLUX:** The ingredient that controls the melting temperature- Feldspar, Gerstley Borate, Lead (white and red)
- **OPACIFIERS:**
 - Transparent- can see through
 - Translucent: Ability to absorb light
 - Opaque: Ability to reflect light
 - Different clay bodies
- **OXIDES:**
 - This is the material in the glaze that adds color
 - Red Iron Oxide: Reds, Blacks, Browns
 - Cobalt Oxide: Blues, Greens

Engobes/Slips/ Underglazes

- A Clay like body (substance) normally the consistency of heavy cream, with or without color
- Applied to green-ware (work that has not yet been fired, leather hard or bone dry)
 - Made up of:
 - 10% Feldspar
 - 35% Ballclay
 - 5% Silica

What are some basic Glaze Application Techniques?

- **POUR**
- Use a small clean container to pour the glaze into and on your pottery
- **DUNK**
- Hold your piece under the glaze for at least 10 seconds for 1 layer, 5 seconds for a second layer
- **BRUSH**
- Use a clean brush to apply glaze in thick even strokes, do not wipe the brush back and forth, just apply in one direction-
 - Allow each layer to dry
 - Apply at least 3 layers