

# General glaze room guidance

Glazing is the final stage of the pottery making process. It has the potential to **literally make or break your piece**, so it is important to understand how it works and the best ways to apply it so that your work comes out of the kiln with the best results possible.

All studio glazes are formulated to fire to **cone 6 (2232°F)**. At this temperature, the glaze materials melt and fuse with the clay body to form a durable glass surface. This glass coat protects the clay and makes the piece food- and drink-safe.

Glazes are mixtures of many ingredients in suspension. Each ingredient affects the final result. **If glazes are not mixed or used correctly, it can impact not only your work but also the work of other members and students who use the glaze after you.**

Use the guidance around the glaze room to help you choose the right materials and application methods, and to set your pieces up for glazing success.

What can be used when	Greenware	Bisqueware
Underglazes	Yes	Yes
Mason stain washes	Yes	Yes
Colored slips	Yes	No
House glazes	No	Yes
Commercial glazes	No	Yes
Stroke & Coats	No	Yes

# House glazes

## How to apply: can be dipped, poured and brushed on

- Glazes can be layered
- Apply the first glaze on bisqueware → allow to fully dry → apply the next layer if desired
- When dipping, only keep the piece submerged long enough to coat the surface, then remove quickly. We recommend 1 second per dip.
- If pouring:
  - Please be mindful of material use - pouring can create significant waste.
  - Always pour above the original container OR place your piece into a bowl or other container to catch excess glaze material, and pour it back into the original container (if you are confident that it has not been contaminated)
  - Ask a staff member for a demo if you're unsure

## Food-safe application order:

- Apply to bisqueware → glaze fire

# Commercial glazes, Stroke & Coat

## How to apply: can be poured, brushed or painted

- If pouring:
  - Please be mindful of material use - pouring can create significant waste.
  - Always place your piece into a bowl or other container to catch excess glaze material, and pour it back into the original container (if you are confident that it has not been contaminated)
  - Ask a staff member for a demo if you're unsure
- If painting:
  - 2-3 coats should be applied for optimal results
  - Commercial glazes/S&Cs may be layered with house glazes using the same *dry-between-layers* approach as mentioned in the note for House glazes

## Food safe application order:

- Apply to bisqueware → glaze fire

# Underglazes

**How to apply: can be brushed or painted**

## Food safe application order:

- Apply to greenware → bisque fire → apply glaze on top (dip, pour, brush) → glaze fire
- Apply to bisqueware → allow to fully dry → apply glaze on top (dip, pour, brush) → glaze fire
- Note! Brushing on glazes may smear painted underglaze designs. Be mindful of brushstrokes if this is your chosen application method.

## Non food safe application order:

- Apply to greenware → bisque fire → no glaze applied on top → glaze fire (optional)
- Apply to bisqueware → no glaze applied on top → glaze fire
- Here, your piece will not be food safe, but can be used decoratively or sculpturally. Glaze firing the piece will fully vitrify or strengthen the piece so it's recommended to do so.

# Mason stain washes

## How to apply: can be brushed or painted

- Mason stains are manufactured ceramic colorants - basically finely ground pigments - that are added to clay, slip, or glaze to give them consistent, reliable color when fired.
- Mason stain washes are mason stains mixed with water (sometimes with a small amount of binder) and brushed or wiped onto clay to add surface color and detail without creating a glaze layer.

### Food safe application order:

- Apply to greenware → bisque fire → apply glaze on top (dip, pour, brush) → glaze fire
- Apply glaze (dip, pour, brush) to bisqueware → allow to fully dry → apply wash on top → glaze fire

### Non food safe application order:

- Apply to greenware → bisque fire → no glaze applied on top → glaze fire (optional)
- Apply to bisqueware → no glaze applied on top → glaze fire
- Here, your piece will not be food safe, but can be used decoratively or sculpturally. Glaze firing the piece will fully vitrify or strengthen the piece so it's recommended to glaze fire.

Note: Never apply glazes on top of washes, this will contaminate the glaze!

# Colored slip (liquid clay)

**How to apply: can be painted, piped, trailed, or any other ways to add texture**

**Food safe application order:**

- Apply to greenware → bisque fire → apply glaze on top (dip, pour, brush) → glaze fire

**Non food safe application order:**

- Apply to greenware → bisque fire → no glaze applied on top → glaze fire (optional)
- Here, your piece will not be food safe, but can be used decoratively or sculpturally. Glaze firing the piece will fully vitrify or strengthen the piece so it's recommended to glaze fire.

# Health and safety

Glazes in their unfired form are hazardous. **They contain minerals and metals that are not safe to consume.** Fired glaze is food-safe, but unfired glaze should always be handled with care.

- Clean tools and surfaces after glazing to prevent glaze dust from drying and spreading
- Avoid handling dried glaze materials whenever possible
- Wipe your hands after transporting glaze pieces to the Glaze drop off shelf
- Keep a clean water source nearby for wiping down tools and cleaning spills
- Wipe or mop up any glaze spills on the floor to avoid tracking material to other areas of the studio
- Do not keep food or uncovered drinks in the glazing area
- Gloves are optional but recommended if you have cuts or sensitive skin

By following these practices, you help ensure safe, consistent, and successful results for yourself and others in the studio.

# Things to absolutely avoid ☺

- Adding or removing water from glaze buckets. Tell a staff member if a glaze seems too thick or thin
- Dipping in glazes for longer than necessary (we recommend 1 second per dip, and you can increase the number of dips depending on desired effect)
- Double dipping when first glaze is still wet
- Applying thick glaze layers
  - Thick glaze/multiple layers have a much higher potential to run, which may damage your piece as well as the kiln shelf and other pieces nearby during the firing
- Glazing the entire surface of the piece
  - Bottom must be cleaned—even if wax was used! Wide, shallow pieces may need to be wiped further up the base than just the bottom surface
- Leaving buckets open after finishing
  - Water evaporation will change the glaze consistency!
- Using a hard-panned glaze
  - This is when a layer of glaze material has settled onto the bottom of the bucket and won't mix back in by just stirring. Please alert a staff member to help!

## Process tips

- Have a plan: Decide how you'll apply glaze (dip, brush, pour), whether you'll layer, and what tools you'll need.
- Wipe bisque first: Use the yellow cloth to remove dust so glaze adheres properly and defects are minimized.
- Protect kiln-shelf contact points:
  - Wax resist areas that will touch the shelf or wipe glaze off before firing.
  - Wax/wipe at least the bottom  $\frac{1}{4}$ " (or higher) to account for glaze running.
- Mix house glazes extremely well:
  - Scrape sides and bottom of the bucket.
  - No clumps on the brush and no settled material at the bottom.
  - Watch the mixing video!



- Inside before outside: When using multiple colors or sections, glaze the inside first, let dry, then glaze the exterior.
- Use cookies & leave notes: Note anything important for techs (e.g. underglaze on bottom, fire with lid, fire on a cookie).

# When layering glazes

- Interior is safest: Layering glazes inside a piece reduces risk since excess pools inside rather than running.
- Exterior layering: Limit additional layers to the top  $\frac{1}{2}$  of the piece; extra glaze increases the chance of running lower than expected.
- Let coats dry: Allow each glaze layer to fully dry before applying the next to prevent contamination and ensure good adhesion.
- Be willing to reset: If glaze feels too thick or risky, wipe it off and start over - it's better than a kiln mishap!
- Know your glazes: Consider runniness, thickness, finish (shiny/matte), and how they behave on different clay bodies when layering.
- Share and document: Keep notes and ask studio mates - testing and shared knowledge are key in a communal studio ☺