

CONVERTING A BRUSHING GLAZE TO DIPPING

Most commercial glazes are heavily gummed and have a fluid consistency made for brushing. If you attempt to dip in a standard commercial glaze before adjusting, you are liable to get too thick of an application. The main measurement we use to adjust our glaze is Specific Gravity or SG, which is the ratio of the density of a substance to the density of a standard, such as water for a liquid and air for a gas. As a formula; it is weight of glaze divided by the weight of water.

Required materials:

- Gram scale
- Narrow container (like a graduated cylinder)
- Tape and/or a marker
- Whisk, emersion blender, or any other mixing tool
- Water
- Darvan 7 (the one we recommend for slip and glaze deflocculation)

Many commercial glazes will have a specific gravity of 1.55 or higher. Our glazes work best between 1.4-1.5. Other glaze manufacturers can go as low as 1.3 when the glaze desires a thinner application.

The following are the steps to find the specific gravity of a glaze:

1. Using a gram scale, tare (zero out) the container before adding the water or glaze.
2. Weigh the water (we recommend 100 grams) and make a mark on your container.
3. Weigh the same volume of glaze up to the mark you made on your container.
4. Divide the weight of the glaze by the weight of the water. This is the specific gravity. You want your Georgies brand glaze to be between 1.4-1.5 for dipping. If the specific gravity is high (1.5 or higher), then slowly add water and thoroughly mix before repeating steps 1-4 to lower the SG.

Most of our glazes are formulated to work best with a SG of 1.45. Certain glazes on a case-by-case basis may need to be thicker or thinner depending on the clay, bisque firing, and application style. This will take some test dips and fine tuning by you to dial it in.

Some glazes might also need an addition of deflocculant such as Darvan 7 to adjust the viscosity after the specific gravity is dialed in. Once you have the specific gravity where you want it, you will mix the glaze in a circular motion vigorously and count how long it takes to stop spinning. 5 seconds or more of spin time before the glaze stops is ideal. If you are only getting 1-4 seconds of spin time after mixing, adjust with Darvan 7 (or a comparable deflocculant) using a few drops at a time before mixing and counting again. The glaze should now have a specific gravity between 1.4-1.5 and is fluid enough to spin for 5 seconds or more. After mixing, you are now set to dip some test tiles. Dial in your thickness for glazes by your dip time and SG. Some glazes (like our GLW12 Eggshell Wash) are formulated to be very thin and will be happy with a SG of 1.4 and a quick in and out dip. Others (like GLW08 Copper Patina) will require a thick application, so an SG of 1.5 and a long dip benefits this glaze. A typical baseline application would be a 3 second dip.