Prepare for Firing

Setting up your kiln for the first firing is really important. It’s kind of like the first kiss in a relationship. It’s a little scary, but very exciting. Many of these steps will be repeated every time you use your kiln.

**STEP 1: CLEAN THE KILN...** Kiln cleanliness is next to kiln-godliness! It is very important to vacuum all brick areas on the inside of your kiln! This includes the inside of the lid, around your elements on the side, and the bottom. Your vacuum should have a HEPA filter, to protect you from inhaling dust. Ideally you would use a shop VAC with a separately purchased HEPA filter. Make sure you are using a soft brush attachment. You are vacuuming because you must remove all kiln brick dust, sand, and residue that could settle into your glass during the firing. This should be done before you load your kiln at least every other time you fire.

*Here’s why you are doing this...*

When the elements heat up, the kiln brick expands. When the kiln cools, the kiln brick contracts. All that expansion and contraction tends to degrade the brick, causing tiny cracks in the brick and eventual crumbling. This crumbled yuk, or kiln brick sand almost always seems to finds its way onto the top of a fired piece of glass. It can be removed by sandblasting the surface of your glass, but who wants to add an extra step when you don’t have to?

If you use frit in your pieces, those tiny fragments of glass can find their way onto the bottom of the kiln. When the kiln heats up those fragments of glass expand and eat into the kiln brick. When the kiln cools, the glass fragment contracts and pulls away pieces of the brick from where it had previously expanded. If you allow this process to continue over and over, a larger hole will be created each time you fire. Eventually, this tiny glass fragment could bore a hole right through the base of your kiln. Of course it would take some time, but who wants to deal with that?

**STEP 2: KILN WASH** Next, you are going to Mix up a batch of kiln wash, aka shelf primer. You want the mix to be somewhat thick for this application, close to the consistency of heavy cream. Then, paint the floor of the kiln with a heavy coating of the mixture. We recommend going about a half inch up the side as well. Repeat this process 3 times. This protects the fire brick from glass that lands on the floor of the kiln. Make sure NOT to get any shelf primer on the elements/coils. Check this coating every few months to assure the floor of the kiln is well protected. Reapply as needed.

**STEP 3: MORE KILN WASH** Now, you are going to thin down the kiln wash to a nonfat milk consistency. Paint your shelf by applying kiln wash in complete thin coats. First in one direction, then in the opposite direction, varying north/south, then east/west, etc. You’ll need
about 6 coats to properly protect your shelf from glass adhesion. Thin coats are always preferred over thick ones. Applying the kiln wash that is too thick will result in the kiln wash peeling back from the shelf after just one firing. It’s really annoying when that happens. If it does, just scrape off all of the kiln wash and start over with thinner coats. This step should be repeated as needed. If the kiln wash is gauged, scratched, or chipped, that’s when it’s time to scrape the shelf clean and reapply.

**STEP 4: VISUAL INSPECTION** Make sure all the coils/elements are in their designated place. In shipping things can get jostled out of place and pins can loosen, so this is the time to tuck everything in where it belongs. Don’t be shy about this because once you fire a kiln the elements – which are flexible when new – will get brittle and are more difficult to reposition. Check this every time you fire! Get in the habit of doing a visual inspection around the kiln before hitting the start button. Also, make sure you have read... where to place your kiln!

**STEP 5: LEVEL** Next, level the kiln. If you can’t get the kiln level, then make sure you level your shelf. Depending on where you’ve placed your kiln, this can be easy of difficult.

*Leveling the kiln:* For a floor-standing kiln, set the feet of the kiln on concrete pavers or bricks, and then shim the pavers -- using a bulls eye level to see when it is level. This step is critical for even thickness when fusing, casting and slumping – especially into deeper molds.

*Level the shelf:* Place the shelf on top of even height kiln posts and place the bulls eye level in the middle of the shelf. Then shim between the posts and the shelf to level. We use 1/8” ceramic fiber. Don’t use anything flammable….duh!

**STEP 6: BE SAFE** Make sure that your power cord hangs loosely, without kinks, and does not touch the side of the kiln. It should go without saying that the cord should be directly plugged into the outlet, and NOT into an extension cord. Remember to practice good electrical common sense.

**STEP 7: TEST TILES** Make test tiles and log your firing schedules, temps, cooling time, etc. This is a MUST. Ideally all kilns would fire the same, and they all would be true to temperature. But that’s not really realistic. Most kilns fire close to the target temp, but each one is a little different. ***It is acceptable if your kiln fires up to 20 degrees cool or hot based on the fact that the temp of the glass, the shelf and the thermocouple tip will all be slightly different. REMEMBER, that target temperatures are stated as a range of temps, not one specific number.

**IMPORTANT:** The above are general guidelines only. Always read your owners manual and follow you kiln manufacturer’s instructions.