

Kiln Corner

Kiln Wash Basics

by Arnold Howard

Photography Courtesy
of Paragon Industries, L.P.

Though Arnold Howard works for Paragon Industries, L.P., the information here applies to all brands of glass kilns. Feel free to send questions for this column no matter what brand of kiln you own.

Hot glass can embed into bare kiln shelves. Since kiln wash, also called glass separator, does not melt at high temperatures, it forms a protective barrier between kiln shelves, the firebrick kiln bottom, and glass.

How do you avoid bubbles when applying kiln wash to shelves?

Before applying kiln wash, heat the shelves in the kiln to around 150°F/65°C for an hour or two. (Separate the shelves in the kiln with posts.) Kiln wash flows smoothly onto warm shelves without forming small bubbles. Preheating shelves also speeds drying and lessens the chance of cracking the kiln wash.

Let the kiln wash dry before firing the kiln. The kiln washed shelves are still wet if they are cool to the touch.

Should kiln wash be sprayed or brushed onto the kiln floor?

We don't recommend spraying kiln wash onto the firebrick floor. That is because airborne kiln wash particles could land in an element groove, burning out an element. Instead, brush the kiln wash on with a hair brush or paint brush.

Coating the firebrick floor or kiln shelf should take only a few minutes, because you don't have to let the kiln wash dry completely between coats. Brush on the kiln wash, allow it to dry for a few minutes, then brush on the next coat.

Is it ever necessary to recoat the kiln bottom with kiln wash? If so, how often? The kiln wash on the shelf deteriorates pretty quickly.

The kiln wash adheres to the firebricks better than it does to shelves, because the firebricks are porous. Therefore, it is rarely necessary to apply more kiln wash after the first application when the kiln is new. Apply more kiln wash to bare areas after removing glass that has stuck to the firebrick bottom.

I live in an apartment. Does a kiln normally produce unpleasant smells during firing?

Glass alone does not produce a strong odor, but paints or decals fired onto glass and shelf paper under the glass produce odors. Because of the shelf paper odor, I prefer kiln wash, which is odorless.

I have come to realize that some cracking of glass during slumping is due to being too close to the heating elements. For tall pieces, I gain over an inch of height by removing the kiln shelf and posts from under the slumping mold. Do I still need to use kiln wash?

A shelf offers partial protection to the kiln bottom from a glass overfire. You can certainly slump glass into a mold without a shelf. However, you should coat the firebrick bottom with kiln wash if you're not using a shelf.

Glaze has eaten into a shelf, and scraping the glaze off the shelf has left a low spot. Can the shelf be repaired?

Yes, in some cases. Coat the shelf with kiln wash. Apply several coats to the low area where you removed the melted glaze. The kiln wash will fill in the depression. However, this is only a temporary repair.

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Start the brush stroke an inch or so from the edge of the shelf and work toward the opposite side. This avoids buildup of kiln wash on the edges.



If glass sticks to the shelf, scrape it off with a putty knife at a sharp angle. Wear safety glasses, since sometimes chipped glass becomes airborne.

Arnold Howard writes instruction manuals and advertisements for Paragon Industries, L.P. His hobbies are glass fusing and karate. He also enjoys studying history and watching classic movies. You can reach Arnold at ahoward@paragonweb.com with questions for future columns. Sign up for his kiln newsletter at www.paragonweb.com.

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