

Kiln Corner

Protecting Elements from Contamination

by Arnold Howard

Although 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.

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

We don't recommend spraying kiln wash onto the kiln floor. This is because airborne kiln wash particles could land in an element groove and burn out an element. Instead, brush the kiln wash onto the firebrick bottom using a hake brush or paint brush.

You have written that elements last a long time unless they are damaged by exposure to foreign materials. What constitutes a foreign material?

Glass, kiln wash, glass separator, ceramic glaze, sand, and enameling powder are among the contaminants that can ruin a heating element. You can use these materials inside the kiln without worry, because they do not ordinarily come in contact with the elements.

It is possible, though rare, for small pieces of glass to fly off of a project and into an element groove during firing. A more likely source of contamination is to spill glass particles into a groove during loading. If this happens, vacuum the grooves before firing the kiln.

Please follow these guidelines to protect your elements from contact with foreign materials:

- Kiln coating, which is similar to kiln cement, is coated onto the firebrick lid or roof to seal the firebrick pores. Kiln coating looks like kiln wash, so be careful to label kiln coating and kiln wash containers. Kiln wash mistakenly applied to the lid can flake off and work its way into an element groove.
- While replacing elements, prevent the new elements from touching the kiln wash on the bottom of the kiln or anything that could contaminate it.
- Before threading a new element into the element groove, check for groove contamination. This is a dark spot left over from where the previous element burned out.
- Use only element pins sold by glass distributors or kiln manufacturers. Nonstandard pins will burn out an element.

Can oils from your hands damage a new element?

Oils will burn off harmlessly the first time you fire the element. Salts can damage an element. However, the amount of salt on the hands is so small that it would have no effect on element life.



*Nonstandard element pins will burn out an element.
Photo courtesy of Jonathan Byler.*



Avoid contaminating sidewall elements when coating the firebrick bottom. Photo courtesy of Paragon Industries, L.P.

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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