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Notes from a Jeweler's Workbench Asbestos: Peril in the Workshop

by Raymond Martell

1973: A series of news items have recently appeared in the New York Times reporting research findings which implicate asbestos as a cause of lung cancer in workers repeatedly exposed to the material. Apparently, inhaled fibers remain embedded in tissues for long periods of time, perhaps indefinitely, and can serve as a focus for tumors. These tend to occur about 30 years after initial exposure. Though the study centered around shipyard workers in World War II who are just now succumbing to the disease, concern was also expressed about the possible risks faced by people in the general population who are likely to inhale the tiny particles from a wide variety of sources.

CANCER IS A SIX-LETTER WORD that gives me pause. So I did a little inventory of asbestos around the workshop and I was astounded by the number of asbestos-based products in use. We had asbestos board under the enameling kiln, and another piece alongside as a rest for the heated work. It was under the electric hotplate, and served as a mounting for our electroplater. Small utility squares were piled on a shelf, along with bags of asbestos powder and assorted asbestos soldering aids. But most visible, and to me the most upsetting, were the large pieces of soft asbestos board used as bench-top soldering blocks. These boards were being moved around the bench top continuously during the work day, and countless times I've dusted loosened particles off the bench top and into the air (and into my lungs?).

We talked the problem over in the shop and decided that asbestos had to go. But what to use as a substitute? The enameling kiln was easy. We put it up on four common bricks. We made plaster bats to be put under the hotplates. We found them fire- and heat-resistant enough for this purpose. The big problem was finding a replacement for the bench top soldering board. I won't take you through our experimenting, but I will tell you what we finally decided on, and what we've been using happily now for several months. These are large kiln bricks (or fire bricks) used to line the inside of kilns. We use the 9-inch-long by 4-1/2 x 2-1/2-inch thick size. Following are instructions on how to prepare them:

First, scribe a line halfway down the side and around the perimeter of the brick (a compass with one leg resting lightly on the top surface for a guide will do just fine). Saw

through with an unmounted hacksaw blade to make two 1-1/2-inch thick slabs. Rub the sawn side on rough sandpaper to level. (That's the bottom.)

Since these bricks are naturally porous, the "open pores" have to be filled to make a smooth work surface. For this we use Kiln Wash (available at pottery supply stores) and water mixed to the consistency of light cream, applied by brush to the top of the brick until pores are filled. (We find the best surface is prepared by dipping a finger into the wash and rubbing it into the surface of the brick. The finished surface is more resistant to powdering, and is perfectly smooth.)

When the kiln wash dries, the soldering block is ready. To resurface, just sandpaper off the old surface and brush or rub on the new. Any slight powdering of the surface during use is easily removed with a puff of breath. We have traced no soldering problems to the use of our new soldering board.



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HELPFUL RESOURCES:

Editor's Note: I would hope that, by now, asbestos has disappeared from the supplies and materials used by jewelers and potters, but a hundred million Americans today may be using dangerous materials in their homes, workshops, and classrooms without knowing it, according to a national clearinghouse for information on this topic.

[Art and Creative Materials Institute](#) (Also Google "health hazards craft materials" to find many other web pages discussing this topic.)

[Society of American Silversmiths](#) (suppliers of hard-to-find goods and services)

[Consumer Product Safety Commission](#): "Where Asbestos Hazards May be Found in the Home"