

Teach Yourself to Torch Fire PMC3

Most people agree that a programmable kiln is the best way to fire PMC, but we understand that not everyone can afford a kiln, especially when they are just trying out metal clay. For those people, torch firing provides a practical and easy way to get started.

The PMC Guild has created a short instructional video, available for free at www.PMCguild.com. The instructions below will go into a bit more detail, and makes a handy supplement to the video clip.

OK, here's what we want to avoid: You invested in a pricey package of metal clay, then spent several hours of careful work to create a form. Now you're going to experiment with a tool and a technique for the first time, not knowing exactly what things look like when they're going right, or when they're going wrong. Sound like a good idea?

Instead, follow these simple instructions to teach yourself how to torch fire.

- 1 Pinch off a piece of PMC3 smaller than a pea. This amount will cost less than a dollar.
- 2 Roll this out to make a rod about an inch long and a bit thicker than a pencil lead.
- 3 Allow the rod to dry, either naturally or by warming it on a stove, with a hair dryer, etc.
- 4 Set the rod onto a fireproof surface like a firebrick, a soldering pad, a piece of kiln wool, or a dish of vermiculite.
- 5 Heat the rod with a torch and watch for these three phases:
 - moisture will leave in the form of steam, a familiar pale vapor
 - the binder will ignite, making gray smoke and a small flame. This will go out by itself in a few seconds.
 - the PMC will turn white, indicating that the binder is gone. You might see the piece shrink slightly at this point.
- 6 Continue heating to a bright red color. Hold at this color for at least a minute. You don't need to time yourself — in fact I don't recommend this because it forces you to look away. Just count in your head, or tap your toe, or generally hold for what feels like at least a minute.
- 7 Remove flame and cool the piece, either in air or by quenching in water.
- 8 Bend the piece in your fingers to confirm its malleability. It should make a loop. If it breaks, the metal was not hot enough. Try again.
9. To learn the limits of torch firing, return the piece to the brick and heat it again. This time, heat to bright red and keep going. Look for the moment when the silver shimmers and appears liquid. Experiment here... remove the torch to see if the form is damaged. Now continue heating, this time going further until the silver pulls itself up into a ball. This is the point of no return, and now that you know what it looks like, you know what to avoid.

