

MetalClays.com instructions for using PMC

Using PMC

Precious Metal Clay combines microscopic particles of silver with water and a non toxic organic binder to create a material that can be worked with as easily as modeling clay. Object can be made with simple tools, then they are dried and heated in a small kiln or with hand held torch. This drives off the water, burns away the binder and fuses the silver particles into solid metal. PMC is also made in gold, which handles like PMC3 but with slightly different firing schedule.

Tools

Tools for shaping PMC include rubber stamps, cookie cutters, childrens toys and many other household items like pens, playing cards, toothpicks and combs. A piece of plastic or glass makes a convenient waterproof work surface. PMC does not stain or harm these tools. Clean up with soap and water. Avoid aluminum foil and aluminum tools because they can damage PMC. Each person has their preferences, but a typical work setup includes a plastic sheet, a rolling pin, a small dish of water and assorted hand tools, Work on any stable surface with adequate lighting

Creating with PMC

All versions of PMC are ready to use directly from package. Keep your PMC tightly wrapped until you are ready to use it. Pull off exactly what you need to work with and wrap the rest in plastic and return to package. This is to prevent premature drying of clay. Apply a thin layer of olive oil to your hands and tools before starting. This will help prevent clay from sticking to you or your tools. Avoid drafts or hot lamps, as this will dry the clay you are working with quicker. Components can be cut, textured, layered and shaped to any form limited only by your imagination. Use water to seal joints and smooth surfaces but take care to not use too much. Most artists do their work while the clay is soft and pliable but some choose to refine after it is dry but before it is fired.

Dry PMC can be sanded, filed and carved similar to model makers wax. When the moisture and organic binder is removed during firing it shrinks proportionately. Original PMC shrinks about 28% while PMC+ and PMC3 shrink about 12%. All form of PMC are compatible in things like PMC+ slip and PMC original. However attaching PMC original and PMC+ components before firing will result in uneven shrinkage and may produce undesirable results.

Set aside your finished pieces to dry. If you are in a rush or just lack the patience a hair dryer, hot plate or toaster oven will help. A toaster oven should be set to 175degrees F for about 20 minutes for most items. Make sure when cleaning up your work area to add a few drops of water to your open pack of PMC and wrap back in plastic to insure it doesn't dry up before its nest use. Make sure to collect scraps and sand dust from your

PMC items, as it will make a great slip when you collect enough. This is done simply by sift scraps and dust through fine kitchen sifter and adding water to desired consistency.

Setting stones

Laboratory-grown gemstones, ceramic shards and some glass components can be fired in PMC. Work as usual but press ornament into the clay pushing it deep enough so that the clay curls over the edges of top. Remember that the clay will shrink, so set the stone deep enough that lip will remain above the stone even after shrinkage. When firing with stones never quench a freshly fired item in water. Doing so will result in a shattered stone. Allow to air cool.

Firing Kiln & Torch

Silver	Fahrenheit	Celsius	Time
PMC	1650	900	Two hours
PMC+	1650	900	10 minutes
PMC+	1560	850	20 minutes
PMC+	1470	800	30 minutes
PMC3	1290	700	10 minutes
PMC3	1200	650	20 minutes
PMC3	1110	600	30 minutes
Torch Firing			
PMC	Not recommended		
PMC+ *	Between orange and bright red but no further		10 minutes
PMC3 *	Between orange and bright red but no further		10 minutes

* Careful not to overheat the material. Staying closer to the orange is better. Use welding safety glasses, as prolonged viewing of torch is bad for eyes. Piece should be fired on fireproof surface such as fire brick or cement pad.

PMC can be fired in any kiln that will hold the correct temperature for the required time. A small programmable kiln is ideal. Set the work on kiln shelves. Uneven shapes can be support by vermiculite or alumina hydrate. Avoid breathing any kind of fine dust including these. In expensive firing dishes can be improvised by the use of terra cotta flowerpots or saucers. After firing PMC can be quenched or allowed to air cool. Do not quench items with gems or glass in them.

Finishing

After firing, PMC is a pure metal, either gold or silver. In this form it can be drawn, sawn, filled, soldered, enameled and drilled. Use conventional jewelry tools and materials. Work should be burnished or tumbled before taking into burnishing machine.

Soldering on PMC+ and PMC3 is very similar to soldering sterling silver. Work at the bottom edge of the heating zone.

Disclaimer

Though rare, it is possible for certain individuals to experience skin rash or itchiness after contact with PMC. If you have a reaction discontinue use and consult a physician if the problem persists. Wash hands after use. Keep out of the reach of children. Avoid ingestion

The preceding instructions are derived in part by manufacturer supplied instructions and personal experience.

For questions or advice call (818) 698-7047 (MetalClays.com)