



COOL TOOLS

## Managing Metal Clay in its Wet Stage

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Metal clay is best when it is fresh, directly out of the package. But what happens after the package has been opened and the artist has worked with it? This article discusses various methods to help manage metal clay and to keep it working at its best in its wet stage.

A very smart metal clay artist once told me: “Leave the metal clay in its package and don’t even open the package until you are positive in your design. At a minimum, work out your designs on paper first, or, better yet, use polymer clay or something similar to work out your design issues/challenges before you go creating in metal clay. You can learn a lot about your design and gain confidence in your creation by working out the details in a similar clay medium rather than jumping in and going straight to metal clay.”

Notorious for drying quickly and losing its hydration, metal clay moisture is lost primarily by evaporation through exposure to air and also by working the clay with dry hands which will pull moisture from the clay. When clay loses too much moisture, it cracks and can break during use, making the creative experience frustrating. Conversely, too much moisture can cause the lump clay to become too sticky or too wet to work with. The metal clay industry calls this over hydrated phenomenon slip or paste, and there is a use and a need for these products, but when lump clay is needed, too much moisture is problematic as well.

Generally speaking, metal clay consists of tiny metal particles, distilled water (no impurities in distilled water), and binder. The addition of binder is what makes the metal particles adhere to themselves to create the clay-like product. But what happens when too many additives are introduced into the clay? The binders break down, making the clay difficult or even impossible to use.

### **Overworking**

Handling the clay too much by rolling, texturing, re-rolling, and re-texturing the metal clay repeatedly can break down binders and render the product difficult to use. Placing overworked clay in a hydrator and letting it rest overnight will help the clay perform better.

## **Additives**

Resist the impulse to add anything foreign to the clay. Again, metal clay is at its best right out of the package and when it is not contaminated with any other product. The overuse of anti-stick products (also known as lubricants, releases or oils) will have a cumulative and detrimental effect on the workability of the clay. Because metal clay artists use these products regularly as metal clay can be “sticky”, they should minimize the amounts used as they interact negatively with the binders in the clay. This can cause the clay to crumble, crack, and lose its ability to hold together well. When rehydrating the clay, the only thing that should be added is distilled water.

## **Conditioning**

Overworked or dry clay can often be restored by conditioning. This is a process in which distilled water is added and worked into the clay to restore hydration. There are many ways to achieve this, and it seems every artist has their own process or technique. One method is to place the overworked clay in between two layers of Saran™ or plastic wrap. The artist then rolls the clay into a thin slab and adds a light mist of water (always add distilled water, as it has no impurities) to the surface of the clay. Then, the clay is folded over onto itself, entrapping the moisture within the clay. The clay can then again be rolled thin, and a tiny amount (fine mist) of distilled water is added again, and the clay is folded yet again. This process is repeated several times to add and evenly distribute moisture throughout the clay, from the center recesses all the way through to the outside. It is helpful to remember that metal clay dries out quickly, but rehydrating clay is a slower process. It takes more time for the binders to accept moisture than it does for the binders to release moisture. If time allows, and for best results, condition and rehydrate clay and then let it “rest” overnight in a metal clay hydrator. A hydrator is a simple tool that consists of a jar or container that includes a sponge hydrated with distilled water. The sponge offers a humid environment for the clay to rest in. Hydrators are also a good place to keep clay for long term storage.

## **Salvaging Overworked Clay**

Clay that has been overworked or contaminated with additives can sometimes be salvaged by incorporating small portions of it into fresh clay. Add 20% of the overworked clay into 80% new clay. Be sure to mix these two clays thoroughly for best results.

## **Restoring Dried Clay**

Sometimes clay can get so dry and hard that normal rehydration techniques won't bring it back to a useable condition. When this happens, the clay can be restored by grinding it back to a fine powder with a coffee grinder or similar tool. By adding and mixing distilled water slowly, dried clay powder can be restored to a workable clay.

### **To get the best from metal clay:**

1. Be confident in your design.
2. Work in a cool, humid environment.
3. Handle and work the clay minimally.
4. Resist the impulse to add anything foreign to the clay.
5. Keep the use of anti-stick products to an absolute minimum.
6. Condition with distilled water only.

By using these methods, artists will increase the performance of the clay and minimize waste. Additionally, and perhaps more importantly, the frustration of working with poor performing clay can be replaced with the joy of creativity.