

How to Make Paper Clay

by Lisa Merida-Paytes

How would you like ceramic work to be lighter? Or stronger? Or both? Paper clay may be the answer since it has all the advantages of durability while avoiding the heaviness often associated with regular clay. Made using any type of clay body—earthenware, stoneware, raku or porcelain, paper clay enhances green strength, decreases warping, improves joining capabilities in wet-to-wet and dry-to-dry situations, and you can even attach wet paper clay to bisqued paper clay piece for repairing small breaks.



Commercial spray insulation, also known as cellulose fiber, can be purchased from your local hardware store.



Clay slip with cellulose fiber mixed in. The finished product will be more textural, with fine strands of pulp.

GETTING STARTED

- Mixing your own paper clay is simple. You'll need to gather the following tools, materials and supplies:
- Prepared clay slip (either commercial or homemade)
- A drill with a mixer attachment
- Buckets
- Bleach
- A plastic rib
- A respirator
- Several plaster bats
- Paper (or cellulose) fibers

MIXING UP CLAY SLIP

To make paper clay, you'll need to add cellulose fiber to clay slip. For the clay slip, you can make your own by recycling bone-dry clay, reconstituting it into slip or purchasing a commercially prepared slip at your local ceramic supplier.

- If you use your own recycled clay body, start with small bone-dry scraps and fill a 5 gallon bucket 1/3 full. Only use bone dry clay as leather-hard clay won't slake down properly.
- Pour warm water into the bucket until you reach a level an inch above the clay. Allow the clay to slake, undisturbed, overnight or until the clay breaks down into a slip consistency.
- After the clay has slaked, blend with a power drill with a mixer attachment.

CAUTION

Wear gloves, a respirator and goggles to protect from inhaling dust particles from the clay or fiber. Be sure to read and follow all product warnings on the cellulose fiber.

CELLULOSE SOURCES

- Paper fiber such as newspaper, cotton linter, or photocopier paper can be used. These types of paper will often develop mold growth if left overnight. To eliminate mold, add a tablespoon of bleach and re-mix.
- I discourage using toilet paper because it contains starch and promotes rot within the clay in as little as a few hours.
- Paper clay can also be made with spray insulation, also known as cellulose fiber and commonly used in insulating attics and homes. I suggest the cellulose for three reasons—strength, time and money. The most important of these being the pre-firing strength supplied by the inclusion of the fibrous material. Also, cellulose fiber cuts out the very time consuming step of breaking down traditional paper materials into pulp. Once the batch is mixed, it keeps for two weeks before developing mold, after which time you'll need to add bleach. Lastly, you can buy a bag of fiber at your local home center or hardware store for around \$9 for 30 square feet. The fiber is compacted, so a bag lasts a long time. The fiber contains 85% recycled paper but also has significant amounts of borax. Because borax acts as flux in clay bodies, I have found that it is necessary to lower the firing temperature by as much as three cones when using cellulose fiber in a porcelain slip. Be sure to do tests first.

MAKING PAPER CLAY

- To make 10-15 pounds of paper clay, pour two gallons of re-cycled clay slip or commercial slip into a five gallon bucket.
- Sprinkle three handfuls of cellulose fiber into the slip and mix with the drill mixer. Crumble the fiber as you add it to the bucket to help prevent dry pockets of material from forming in the slip.
- Mix the slip and fiber for approximately 15 minutes. While mixing, the slip may require more water, but add only small amounts at a time.
- Once the materials are thoroughly combined, run your hand through the slip to make sure there aren't any large, dry clumps of fiber remaining. Break up any clumps and continue to mix for several more minutes until the slip comes to a yogurt consistency with tiny threads of texture.

USING PAPER CLAY

- Paper clay slip can be cast directly into molds.
- To prepare the paper clay for handbuilding, pour the slip onto dry plaster bats and spread it around with a rubber rib until it's a half-inch thick. Wait 10-15 minutes for the plaster to absorb the excess moisture and the slip forms a hardened film. Flip the clay over to dry the other side for another 15-20 minutes. At this point, the clay should be workable as a slab or ready to be wedged for other handbuilding techniques.

TIPS

Using paper clay made with any paper fiber, newspaper, computer paper, etc., expands the possibilities of working with clay. Mixing paper clay made with cellulose fiber enhances the possibilities even further due to the textures of the material. While working in the wet stage, paper clay made with cellulose fiber joins together nicely without scoring or slipping. Paper clay can be used either to handbuild or as an internal support system within your sculpture, and can be allowed to speed dry without covering. It is possible to join paper clay together at any stage, wet-to-dry and sometimes even wet-to-bisque. If a crack occurs while in the green or bisque stage, simply fill the crack with the same recipe of paper clay slip and re-fire the piece in a well ventilated gas or electric kiln. Paper clay is extremely strong in the bone-dry stage and this added strength helps to ensure safe passage from the studio to the kiln. ■