

# Mix Papercrete | Papercrete Recipe

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Clide and Kate at [Eve's Garden](#) were early users of our sprayers using papercrete. With lots of hard work and creativity they have built a Bed and Breakfast ecology center that is worth seeing. We want to thank them for a great job of building sharing and teaching. For more papercrete information visit their website.



Below is the mix they have used for durable and fire resistant papercrete blocks and bricks:

## For one cubic yard mix:

- 2 cubic feet of Portland Cement
- 2/3 cubic foot of Metakaolin Pozzolan
- 12 cubic feet of perlite or plaster sand
- 125 pounds of short aspect paper fiber (newspaper)

The papercrete mixes at Eve's Garden have stemmed from research in the standard adobe building of the American Southwest. Generally, many easy handling sized bricks are made. Next, they are either mortared in place or dry stacked then surface bonded. This is the age-old adobe system from 3000 years ago.

There are many different ways to mix papercrete. You can use a cement or mortar mixer. This takes a little longer to pulp the paper, but it does work. Many people do not have a mixer, so you can use a 30 gallon plastic garbage can or a

5 gallon bucket. In the following example, we will use a 5 gallon bucket. First, fill the bucket with shredded paper and fill with water until the paper is just covered.

Next take a 1/2" drill with a stucco mixer attachment (about a \$15 attachment from HomeDepot, Lowes or possibly your local hardware store) When buying a stucco mixer attachment, get the one with the blades for better efficiency since the paddle type don't work as well. Now, take the drill with the stucco mixer attachment and pulp the paper. This should take about 5 to 8 minutes. When the paper is pulped, take 1/2 of a 2lb coffee can full of portland cement (the amount of cement varies depending on your project). If you are making stepping stones, you would want a stiffer mix, thus requiring a full coffee can of cement. For most projects, a 1/2 can works well.

Now, you can mix the portland cement, pulp and water thoroughly. This usually takes about 5 to 7 minutes. The mix is now ready to pour into a form. Note that if you want a stiffer mix for sculpting or shaping, use less water and you will have a stiffer mix. The mix described here is approximately a 90% paper and 10% portland cement. This mix will produce a very light weight product with a pretty good R value. If your papercrete project will lay directly on the ground, use a mix of 60% paper, 20% portland and 20% fine to medium grade sand. The above mixes are by volume not weight.

Here are some common mixes and their uses, also by volume:

Use	% Of Paper	% Of Portland Cement	% Of Sand	% Of Clay
Good General Use	80	20	0	0
Good For Shaping of Sculpting	80	10	10	0
Outdoors: Retaining Walls, Stem Walls, etc	60	20	20	0
Can Replace Sand Mix	80	10	10	0
Floors	70	10	10	10 (for indoor)

For coloring, clay or pigments can be added.

More information on [Papercrete](#).